A Lecture

ON

PULMONARY TUBERCULOSIS IN EARLY CHILDHOOD.

WITH SPECIAL REFERENCE TO ITS PREVENTION AND TO ITS DIAGNOSIS FROM OTHER WASTING DISORDERS.

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BY ARTHUR LATHAM, M.B., B.CH. OXON., M.R.C.P. LOND.,

ASSISTANT PHYSICIAN TO ST. GEORGE'S HOSPITAL AND TO THE BROMPTON HOSPITAL FOR CONSUMPTION.

GENTLEMEN,—Pulmonary tuberculosis in young children is a common disease—in fact, according to Baginsky, no less than 8 per cent. of all cases of pulmonary tuberculosis occur during the first ten years of life.

ETIOLOGY.

We have not sufficient time at our disposal this afternoon to make anything like a comprehensive study of this disease; still I think our best plan will be to glance briefly, in the first instance, at the etiology of the disease. Our knowledge on this part of the subject is not as definite as we could wish and forms an insufficient basis for the dogmatic assertions of the present day. There can, however, be no doubt that predisposition—the hereditary and acquired character of the soil—is a most important factor; thus healthy infants reared in tuberculous surroundings are not so liable to become infected as are the children of tuberculous parents, although these latter children may have been removed to healthy surroundings. As regards the infection itself there is also no doubt that in the vast majority of cases the tubercle bacillus reaches the lungs of young children either by an infected air-supply or by an infected milk-supply. A very large proportion of pathologists hold that an infected air-supply is much the more common cause. Their view is mainly based on post-mortem evidence and on the fact that a tuberculous lesion of the bronchial glands is the most constant lesion found, and, further, that in the majority of cases the tuberculous process, viewed from the pathological standpoint, is more advanced in these glands, more especially on the right side, than it is elsewhere. I have studied a large number of reports giving relative statistics of the seat of the most marked lesions as observed at post-mortem examinations. These cases, which number over 3000 and which on the whole agree fairly closely, show that the above statement holds good. The deduction that tuberculosis of the bronchial glands is therefore always due to an infected air-supply does not, however, in my opinion necessarily follow.

In a lecture of this kind I cannot go into as much detail as I should wish or do more than give you a general idea of my own views and an outline of the evidence upon which these are based. I believe that an infected milk-supply plays a far more important rôle in the production of pulmonary tuberculosis than is allowed by most observers. I do not, however, in the least deny that air-infection is responsible for a certain proportion of cases. The bronchial glands are undoubtedly the chief seat of the disease, and this, I believe, is largely due to the fact that they form the most favourable ground for the growth of the bacilli, however these may be introduced, just as the valves of the heart may afford the best ground for other micro-organisms in infective endocarditis. My impression is that both in the adult and in the child the primary infection is by means of the lymphatic system, and up to the age of three and a half years is often dependent upon the tubercle bacilli, of an infected milk-supply, passing through either the upper or the lower portion of the alimentary tract, and eventually setting up changes in the bronchial glands. We know that the milk lies in contact with the upper part of the alimentary tract, which is common to the respiratory tract, or with the stomachic or intestinal mucous membrane. The tubercle bacilli do not rest here, but pass on by means of the lymphatics, leaving traces on their way, to the bronchial glands. Here they find what is usually called a nidus, and the glands undergo tuberculous changes of varying degree; the tuberculous process then not infrequently spreads from these glands to the lung tissue (1) by direct continuity; (2) by means of the lymphatics, but against the supposed lymphatic stream; (3) by ulcerating into a blood-vessel and in this way disseminating the bacilli all over the body; and (4) by ulcerating into a bronchus. When infection takes place by means of the respiratory tract it follows the same path—i.e., it passes through the lymphatics of the *upper* portions of the respiratory tract, and by means of them to the bronchial glands. It does not seem probable, on both anatomical and experimental grounds, that the air carries the tubercle bacilli by a tortuous path to the smaller bronchioles of the apex or other portions of the lung and then deposits them free to set up tuberculous changes. There is some evidence to show that the infection in the adult is also due to lymphatic absorption from the upper portion of the respiratory tract, and the observation that the apex of the right lung is affected more commonly than the bronchial glands may be due to the different lymphatic relations which obtain in the adult and in the very young child, differences which may in part be accounted for by the atrophy of the thymus gland. In this connexion I would remind you that, as in the adult the right apex is most commonly affected, so in the child the right set of bronchial glands is more commonly the seat of tuberculous disease than is the left.

If we argue on *a priori* lines we find that in adults, where, in the majority of instances, we undoubtedly have to deal with an air infection, the lungs are affected before, and more extensively than, the bronchial glands; consequently, if in children the primary affection is also through the air-supply we would expect to find a similar condition of things. We find the direct opposite; in fact, if post-mortem appearances in young children teach anything, they teach that tuberculous disease of the lungs does not often occur unless the tubercle bacilli first of all establish a hold on, and produce more or less advanced pathological changes in, the bronchial glands. The whole picture of adult pulmonary tuberculosis differs from what we find in the young child; in the former case the process is usually obronic and accompanied by a production of fibrous tissue, and an effort towards repair; in the latter the process is usually acute, there is seldom much fibrotic change, and the stage of cavitation and breaking down of tissue is comparatively seldom reached. In children we often find tuberculosis, sometimes advanced, in the bronchial glands, whilst the lungs are practically unaffected, a condition that is hardly ever met with in the case of adults. This difference in the course of pulmonary tuberculosis in the adult and in the child is more marked if we limit the age of the child to three and a half years, and may no doubt be partly accounted for by the more rapid growth of the tissues which takes place in the child. If we continue this *a priori* line of argument we may point to the fact that tuberculosis is, in numbers of cases, undoubtedly transmitted from the cow to her calves by means of the milk, and this in spite of the calves undergoing what is to all intents and purposes the open-air treatment. Or we may point to the striking fact that the curve of tuberculosis in children commences at the age of six months, reaches its maximum about the second year, and undergoes a remarkable fall between the third and fourth years—that is to say, tuberculosis is most marked at an age when infected milk would have most play, and becomes less frequent as the children begin to leave what may be called their milk life. Again, during the last 20 years the number of tuberculous cases has been very considerably diminished by better hygienic conditions in every period of life except early childhood. We know that, although great improvement has been made in our hygienic conditions, no improvement has been made with regard to the sale of tuberculous milk. We know that tuberculosis of cows is extremely common and we know that tubercle bacilli are to be found, not only in ordinary milk, but also in many specimens of condensed milk. We know, further, that in very young children, on account of the frequency with which they are fed, milk is practically always in contact with the upper part of the alimentary tract, and that it is an uncommon thing to perform a post-mortem examination on the body of a young child without finding semi-digested milk in the stomach or intestines; so that although the number of tubercle bacilli in a given sample of milk may not be great, yet such bacilli as there are have every opportunity for passing through the mucous membrane of the alimentary tract.

The whole question really turns on the circulation of the lymph. Our knowledge of this is very limited, for the circulation of lymph does not always follow the course we should expect, if we confined ourselves to our gross anatomical knowledge. In the case of animals it is a common thing to be able to watch the spread of tuberculosis by means of the lymphatics against the supposed direction of the lymphatic stream. Further, as I will point out in a moment, it is not always the case that the lymphatic glands in the immediate neighbourhood of the part with which the bacilli first come in contact are the first to be affected, nor is it true that the glands which show the most marked changes are necessarily the glands first attacked.

With regard to infection from the alimentary canal we know that tubercle bacilli can pass through the intestinal membrane without leaving any trace of their entrance and yet cause tuberculosis in more distant parts. Much has been made of the absence of ulceration of the intestine, except when the tuberculosis of the mesenteric glands is extreme. My impression is, that when the tuberculosis of the mesenteric glands—which appear to be less susceptible to tubercle in the human subject than the bronchial glands—is extreme, it is due in many cases to a secondary infection back against the lymph stream. Further, it is a noticeable fact that tuberculous ulcerations of the bowels nearly always have a vascular rather than a lymphatic distribution. That other bacilli can pass through the intestinal walls is shown by the number of cases recorded of typhoid fever in which there has been no lesion of the intestine or mesenteric glands. Bollinger, many years back, showed that on injecting dilute solutions of phthisical sputum into the peritoneum and intestine the peritoneum remained sound in two-thirds of the cases although the lungs became tuberculous. Durham, again, has shown that in cases of peritonitis the most important of the lymph channels which drain the peritoneal cavity are those which pass up along the anterior mediastinum, and that the glands which are affected are the anterior mediastinal group, of which the most constant are those in the first intercostal space. It is a common surgical experience in the case of other organisms to find lymph glands unaffected by the passage of the virus to favourable tissues. It is not uncommon in malignant disease within the abdominal cavity to find that the only lymphatic glands secondarily affected are situated above the left clavicle. A number of experiments which I have made confirm the statement of Delépine, that if guinea-pigs are inoculated in the leg, the seat of inoculation, the popliteal gland, the subcutaneous tissue from the popliteal region, and the spleen become infected at the end of four days, and that the superficial inguinal glands are not affected until the eighth day. As the superficial inguinal glands are always infected before the deep set this means that with a primary infection of the leg the spleen becomes tuberculous four days—and here we are dealing with a considerable source of infection—before the glands in the inguinal region are affected.

With regard to infection by means of the milk-supply through the lymphatics of the upper portion of the alimentary tract I would point out that there is very considerable evidence to show that tubercle bacilli are frequently to be found in this region. To emphasise this, I may mention that in a careful investigation, by means of inoculation, of the central portions of the tonsils of 45 consecutive cases—the ages of the children varying from three months to 13 years—which were removed by operation or in the post-mortem room I was able to demonstrate the presence of tuberculosis in no less than seven cases, and in this I have merely confirmed the work of Dieulafoy, Gottstein, Woodhead, and many others. Bacilli may pass through the mucous membrane in this region without leaving any trace and so get to the deep glands of the neck. From these the bacilli may pass to the bronchial glands, if we believe the authorities who assert that the deep cervical glands consist of two sets, one which runs along the carotid sheath and drains the mouth, palate, lower part of the pharynx, &c., and one which, lying in the supra-clavicular fossa, drains the upper set of glands and the lower part of the neck, and in addition communicates with the lymphatics of the axillary and mediastinal glands.

I have seen several cases where the primary infection was obviously in the tract common to respiration and alimentation. One of these cases was that of a young child, three months old; both tonsils were ulcerated; one was undoubtedly tuberculous; the glands on the same side of the neck were tuberculous; the bronchial glands were tuberculous, and there was general tuberculosis. The importance of this case lies in the fact that the mother of the child died from phthisis, that the child was fed practically all its life from the mother's breast, and that the most advanced disease was in the bronchial glands. Infection such as this may, of course, be due to respiratory causes and, in my opinion, often is. I am, however, convinced that the milk-supply is a more common source than is generally allowed, and though my evidence may not be convincing it is, I think, suggestive.

It is clear, then, even from our present knowledge that in taking steps to prevent pulmonary tuberculosis in young children we must not confine our attention to tuberculous sputum and hygienic surroundings, but must also insist that our food be free from tubercle bacilli. There can be no doubt that this disease is a preventable disease and that, from a national point of view, our present methods for limiting its scope are far from what they should be.

CLINICAL VARIETIES.

The clinical varieties of pulmonary tuberculosis in young children are numerous, and very divergent classifications are given by the various authors on this subject. There is one fact, however, which is beyond dispute—namely, that the characters of pulmonary tuberculosis in very early childhood are radically different from those which obtain after the age of six years. Until the child is three and a half years of age tuberculosis is mainly dependent upon the infection of the bronchial glands and spreads from these glands to the lungs, rather than from the lungs to the glands as is the case in the adult. After the age of four years the lesions found are more and more comparable with the types we are familiar with in adult life. The varieties which are found up to the fourth year may be classified as follows:—1. Tuberculosis of the bronchial glands. This, of course, should not, strictly speaking, be included under the heading of pulmonary tuberculosis, but in view of what I have already said it is convenient to do so. 2. Miliary tuberculosis of the lungs. This may be dependent upon (*a*) a rapid primary infection without any discoverable old focus; (*b*) the rupture of a tuberculous bronchial gland into a blood-vessel with rapid dissemination throughout both lungs, more especially of the lower lobes; and (*c*) pulmonary infection secondary to other and older lesions, such as tuberculous disease of the testis, bone, &c. 3. Tuberculous broncho-pneumonia. This may be dependent on (*a*) the tubercle bacilli obtaining a hold upon a simple persistent broncho-pneumonia; and (*b*) direct spread by the lymphatics of the bronchi from a previously diseased bronchial gland. This third variety may go on, especially in the confluent form of broncho-pneumonia, to what Goodhart has aptly called cheesy consolidation, or it may in rare cases go on to a fibroid condition of the lung. In children who have reached the age of six years we may have in addition to any of these varieties: 4. Pulmonary tuberculosis which approaches the adult type but differs somewhat in its distribution and in the fact that there is a diminished tendency towards the formation of fibrous tissue.

TUBERCULOSIS OF THE BRONCHIAL GLANDS.

Uncomplicated tuberculosis of the mediastinal glands gives rise in the large majority of cases to no distinctive symptoms. As we have seen, tuberculosis of these glands frequently leads to secondary infection of the lung; these cases are associated with the usual constitutional symptoms, but in very many instances the glands may undergo changes, such as enlargement, caseation, calcification, fibrosis, and the like, without giving rise to any signs or symptoms during life. Thus it occasionally happens that the first indication of the disease is the perforation of a bronchus by a softened gland, an accident which not infrequently has a fatal result. Enlargement of the bronchial glands, to a sufficient degree to cause symptoms, must be on a comparatively extensive scale. General symptoms, such as rise of temperature, may or may not be present; they may or may not precede the local ones which in the nature of things are mainly mechanical. In fact, in an uncomplicated case of enlarged tuberculous bronchial glands, if we get any signs at all they are those of a mediastinal tumour, and are usually more marked on the right side of the chest. Percussion may give dulness over the upper portion of the sternum or posteriorly along either side of the spine from the second to the fifth dorsal vertebræ. On auscultation we may have the tracheal or bronchia

sounds transmitted to the ear and so may hear, more especially behind, cavernous, or, in marked cases, amphoric, breathing together with bronchophony; or if the enlargement is less pronounced exaggerated breathing together with prolonged expiration. It sometimes happens that we meet with a case in which there is compression of some part of a bronchus; we then hear either a very feeble respiratory murmur, or no murmur at all, over one lung or over one lobe of a lung. This sign, as Holt points out, is of great diagnostic value, but it is not often present. Large moist râles may be heard and we may be tempted to diagnose the presence of a cavity. Eustace Smith lays stress on the fact that even before the enlargement of the glands has become sufficiently great to cause obvious signs a venous hum may sometimes be heard over the upper part of the sternum if the child be made to bend the head back so that the face becomes almost horizontal. Other pressure symptoms vary according to the seat of pressure. Thus we may have pressure on the vagus or recurrent laryngeal nerves leading to paroxysmal cough, dyspnœa, and sometimes change of voice; pressure on the trachea or large bronchi causing dyspnœa; pressure upon the superior vena cava causing cyanosis and œdema of the face and upper extremities, with prominence of the veins and occasionally hæmoptysis or epistaxis.

DIAGNOSIS.

Enlargement of the bronchial glands due to tuberculosis must be diagnosed from enlargement due to other causes, such as syphilis, Hodgkin's disease, and malignant disease. These diseases are very much less frequent than tuberculosis; still in an individual case we have to depend upon the associated signs or symptoms of these diseases in other portions of the body. The paroxysmal cough sometimes suggests whooping-cough or asthma; these diseases may usually be excluded if we have definite evidence of a mediastinal tumour, or if we have the associated symptoms of tubercle, or in the case of whooping-cough by the characteristic whoop which sooner or later makes its appearance. The alteration in the voice, the presence of the venous hum, or the existence of other pressure symptoms often gives us definite information.

MILIARY TUBERCULOSIS OF THE LUNG.

Miliary tuberculosis of the lung seldom occurs in young children except in cases of general tuberculosis. It is, however, these cases of general tuberculosis which are most frequently met with in very early childhood. The disease may occasionally be due to an acute infection without any old focus being discoverable, but it is much more commonly due to a primary infection of the bronchial glands or other tissue, and is caused by the dissemination of the tubercle bacilli by means of the blood stream. The symptoms may be divided under two heads: (1) general and (2) localising. The general symptoms always precede the localising ones; indeed, many cases show no localising symptoms at all, or only towards the closing scenes of the disease. The onset is usually insidious—the child gradually wastes, although he takes his food fairly well. This wasting is followed by general malaise, anæmia, want of appetite, and so on, but as a rule digestive disturbance is not a marked feature. Eustace Smith lays stress upon a slight pitting of the shin combined with a dry inelastic condition of the skin. Sooner or later there are febrile symptoms; but the temperature is seldom above 102° F., and though irregular is not of the hectic type. So far, then, we have nothing characteristic of tuberculosis, and in fact, we have nothing upon which we can give a decided diagnosis. The progressive wasting with slight fever makes us suspicious, and our suspicions become a certainty when we find, as we do towards the later weeks of the disease, more or less definite localising symptoms. Thus we find hurried respiration, cyanosis of the lips and face, together with râles and diminished resonance all over the chest, or the presence of an occasional pleuritic rub; perhaps we may find some enlargement of the spleen, or more rarely of the liver, or evidence of the involvement of the bronchial glands, or it may be we discover tubercles in the choroid together with slight intolerance of light and other symptoms of meningitis.

DIAGNOSIS.

We have to diagnose this variety of tuberculosis from, amongst other things, simple debilitated conditions, from marasmus, typhoid fever, congenital syphilis, and in some cases malaria. The diagnosis is always difficult, and it is best to be always on the look-out for tuberculosis whenever we have to deal with a child in whom there is progressive wasting, but on the other hand to be in no hurry to make a positive diagnosis one way or the other. As long as there is an obvious and adequate cause for the wasting there is no necessity to make a diagnosis of tuberculosis. In the absence of definite or localising symptoms the surroundings, and, in fact, every available piece of evidence, must be duly weighed; a strong family history of tubercle or obvious tuberculous surroundings are in favour of a diagnosis of tuberculosis, just as an epidemic of typhoid fever in the neighbourhood is in favour of one of enteric fever. The demonstration of the presence of tuberculous deposit elsewhere, especially in the bronchial glands or testis, or the development of tubercles in the choroid, is decisive. Again, debilitated conditions and marasmus usually have a very definite relation to food and, unlike tuberculosis, are nearly always accompanied by diarrhœa and digestive disturbances; further, cases of marasmus respond very readily to an improved dietary. Typhoid fever may be distinguished by the more continuous fever, the presence of rose spots, together with an enlarged spleen, and, most valuable of all, by Widal's reaction, provided that this is obtained by a competent observer. Congenital syphilis may usually be distinguished by the family history, by the characteristic appearance of the child, and by the fact that other symptoms of syphilis are rarely wanting. The diagnosis from malaria must rest on the examination of the blood.

TUBERCULOUS BRONCHO-PNEUMONIA.

Tuberculous broncho-pneumonia may be due to a previous infection of the bronchial glands spreading into the lung by means of the lymphatics, or it may follow upon a simple broncho-pneumonia such as we sometimes have in whooping-cough, measles, and the like. The disease may be acute or it may run a more chronic course. In the acute cases there may be nothing in the symptoms or signs to justify a definite diagnosis of tuberculosis; but in many cases, towards the end, we have evidence of meningitis. In the more chronic form we may have an initial stage in which we have only the general symptoms of tuberculosis; this is followed by the development of pulmonary signs and symptoms. These vary markedly, often from day to day, and are essentially those of simple broncho-pneumonia, save for such differences as I shall point out in connexion with the differential diagnosis. The fever is moderate as a rule and in no case is it persistently high; there is seldom hæmoptysis, whilst definite signs of associated pleurisy are uncommon. The disease is rarely arrested, but reaches a fatal termination in from one to six months' time. Cheesy consolidation, especially of the lower lobes, or marked fibrotic changes, such as we find in the adult, may in some cases be the result of tuberculous broncho-pneumonia.

DIAGNOSIS.

The diagnosis of tuberculous from simple broncho-pneumonia is always difficult. Simple broncho-pneumonia may follow measles or whooping-cough and persist for some months, and we may be almost tempted in these cases to make a diagnosis of tuberculosis, only to find that all the signs and symptoms disappear. No disease teaches us so emphatically the necessity for the careful investigation of every detail connected with the case and the danger of making a diagnosis except after repeated examination. As a general rule tuberculous broncho-pneumonia has an insidious onset; in fact, if an attack begins with acute symptoms in a child who has enjoyed previous good health and has had the benefit of good surroundings the broncho-pneumonia is, nine times out of ten, of a simple form, no matter, as Holt in his excellent account of this disease insists, what the physical signs are, no matter how prolonged or irregular a course the disease may run. On the other hand, we must remember that in tuberculous broncho-pneumonia we often have intervals of what appears to be comparatively good health, and that the symptoms may abate for a time, only, however, to reappear in an aggravated form. The diagnosis here, as elsewhere, must rest largely on the associated conditions. The appearance of the child may help us, but it is seldom wise to place too much reliance upon this. It is, nevertheless, a fact that a copious crop of downy hair is frequently found on the backs of children who become tuberculous. Tubercle is strongly suggested if there is marked evidence of a tuberculous family history or of tuberculous surroundings; or

again, if we find that the child has some other tuberculous lesion, such as testicular, spinal, or hip disease. Associated enlargement of the bronchial glands is convincing, as, of course, is any evidence of softening in the lungs. An occasional pleuritic rub may help us. Little stress can be laid upon the character of the temperature; still if this is taken at frequent intervals we may find comparatively large excursions which are more suggestive of a tuberculous than a simple form of the disease. Our difficulties may be solved if we can obtain the sputum. Young children, however, mostly swallow their sputum—in fact, any child under six years of age who expectorates profusely is probably suffering from pulmonary tuberculosis. It is worth while to mention that the sputum may sometimes be obtained by giving the child a gentle emetic; failing this it will sometimes be found possible to pick out little masses of purulent material from the fæces; these represent the swallowed sputum, and on examination may yield definite evidence of tuberculosis.

PULMONARY TUBERCULOSIS RESEMBLING THE ADULT FORM.

I have already said that after the age of four years, and still more after the age of six years, the type of pulmonary tuberculosis conforms more and more with what we commonly meet with in adult life. We find, however, some characteristic differences. There is not the same tendency for the tuberculous process to begin at the apices of the lungs and to extend gradually downwards which we find in the adult; there is not the same tendency to the formation of fibrotic tissue. Extensive excavation is less common; hæmoptysis and laryngeal complications are seldom met with; pneumothorax is rare; and, finally, the child not infrequently succumbs to meningitis or other acute infection. Remember that in children physical signs are not to be depended upon as strictly as in adults; for instance, a cracked-pot sound may be of no importance at all.

PROGNOSIS.

The question of prognosis in any form of tuberculosis is always difficult, and this is especially true in the case of children. The immediate outlook is naturally grave in uncomplicated tuberculosis of the bronchial glands when there are marked pressure symptoms. When the associated conditions are not so prominent both post-mortem observation and experience teach us that we may expect most excellent results in many cases from careful treatment, provided that this treatment is carried out under medical supervision for a sufficiently protracted period of time. We must never forget that tuberculosis of the bronchial glands is a fertile source of further infection, and in these cases we must constantly be on the alert for any symptoms which may indicate that the lungs are becoming involved, and consequently must pay more attention to any apparently trivial and incidental illness in such a child. The prognosis in miliary tuberculosis of the lung—which is due to a blood, and therefore extreme, form of infection—is most grave. Cases usually reach a fatal termination in from three to six weeks after the onset of acute symptoms. In the tuberculous form of general broncho-pneumonia, which is so largely due to infection through the lymph stream, the prognosis is again a grave one. Acute cases may terminate fatally in a few days or they may run on for from two to six weeks. In the more chronic cases, as a rule, the patients gradually become worse, sometimes regularly, sometimes irregularly, and they die in from two to six months. When the condition in this form of the disease is comparatively circumscribed the outlook is much more favourable and the reaction to suitable treatment is much more marked. Cases in which the process starts during the acute stages of measles or of whooping-cough are unfavourable; when, however, the tubercle bacilli become grafted on a simple broncho-pneumonia which follows an attack of measles or pertussis the outlook is a brighter one. Always be guarded in your prognosis, for you will occasionally meet with patients who seem hopelessly ill but who eventually get well and possibly remain well; on the other hand, you will see cases in which the disease appears to have become quiescent but in which the patients succumb to some acute exacerbation following upon what is often thought to be a trivial and incidental illness. In the adult type of pulmonary tuberculosis in young children the prognosis is more favourable. Children who come under medical care in the initial stages of the disease in very many instances do remarkably well. This clinical experience is supported by the frequent observation after death of healed tuberculosis. In some cases the disease may apparently heal completely, but sometimes some trivial incident causes the disease to light up again and to follow an acute course. Therefore do not be in a hurry to pronounce that the disease is cured, and always insist that your cases be kept under medical observation and direction for a long period of time. In later stages of the disease I do not think that the prognosis in children is as good as it is in older people, and no doubt this is largely due to the absence of fibroid and localising change. In making a prognosis you must, as in the adult, take into account the family history and the surroundings of your patient; his general appearance, constitution, and previous history; and you must search carefully for tuberculous lesions elsewhere.

TREATMENT.

The first thing to do in the case of a child who is threatened with tuberculosis or who has developed definite signs of the disease is to take care that there is no further possibility of infection either through the air or through the food-supply. The measures to be adopted are the ones you are familiar with in the case of an adult patient; it may, indeed, be said at once that our treatment of tuberculosis in young children must follow the general lines of our treatment of this disease in the adult. The treatment of miliary tuberculosis, general tuberculous broncho-pneumonia, and advanced forms of tubercle is mainly symptomatic. In the case of a child who seems to be threatened with tuberculosis, or who has definite symptoms of bronchial infiltration or of the commencement of tuberculous changes in the lung comparable to what we see in the adult, we must be guided by the following principles. The most important is attention to detail; nothing is so small but that it should receive attention. The patient must have fresh air with plenty of sunlight, a sufficiency of good, nourishing, digestible food; precautions must be taken against catching cold and against becoming tired. This last is very important and is often overlooked, but you will find not infrequently that the advance made by a child, after the expenditure of much anxious care on your part, is altogether neutralised because he is allowed to over-exert himself. On the other hand, the child must be made as hardy as possible.

With regard to climate, the chief necessities are an equable temperature and a dry soil. Large variations of temperature and a moist atmosphere are harmful; high altitudes are better avoided; cold, if dry, is preferable in many cases to warmth. Details as to a proper form of clothing must not be forgotten; careful attention must be paid to any apparently trivial illness which may arise, and the condition of the tonsils and the throat must be carefully scrutinised. You will find in many cases that small amounts of stimulants do good, and that massage often leads to considerable benefit. Of drugs, the most beneficial in children is cod-liver oil; this is really a food and may sometimes be replaced by cream. Too much must not be given; indeed, in dealing with tuberculosis of young children our best plan is to begin with small doses in the case of nearly all drugs and then gradually to increase the daily amount. Give half a drachm of cod-liver oil twice a day to a child of two years of age and gradually increase the amount. From time to time inspect the stools to see that this fat is absorbed; if it is not, diminish the dose or give in addition some pancreatic preparation. If a child will not take the oil in this way give it in the form of an inunction. Of other so-called specifics, preparations of creasote, commencing with half-minim doses, guaiacol, calcium chloride, and the hypophosphites in gradually increasing doses, are often of undoubted benefit. The syrup of iodide of iron or vinum ferri are useful preparations in anæmic cases and in uncomplicated cases of enlargement of the bronchial glands. Symptoms must be treated as they arise, on the principles with which you are already familiar. In advanced cases our efforts must be directed towards the relief of distress and finally towards euthanasia.

NOTIFICATION OF INFECTIOUS DISEASES.—At the meeting of the Torquay Town Council, held on Dec. 5th, it was agreed, on the recommendation of the Sanitary Committee, that the medical officer of health should be authorised to pay half a guinea for each notification received from medical practitioners of cases of infectious diseases existing on farms sending milk into Torquay.

ON SOME DISAPPOINTMENTS OF SURGERY.[1]

BY D'ARCY POWER, F.R.C.S. ENG.,
SURGEON TO THE VICTORIA HOSPITAL FOR CHILDREN, CHELSEA; ASSISTANT SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

THE art of surgery has improved so rapidly during the last quarter of a century that we are perhaps a little too much inclined to consider a surgical operation as the simplest and most certain method of curing a patient. In many cases the operation actually cures; in other cases it relieves the particular condition for which it was undertaken; whilst in others, again, the result by no means fulfils the expectations of the surgeon or even of the patient. These surgical disappointments are quite distinct from surgical calamities, the number of which can be lessened by care, though no foresight can wholly abolish them from the practice of the most competent operator. I mean death during trivial operations, serious hæmorrhage, unavoidable injuries to vital structures, and the physiological peculiarities of individual patients which embarrass the surgeon to the detriment of the patient. With such calamities I have nothing to do at the present time. They occur with greater or less frequency in the practice of every surgeon and are necessarily independent of the care which he bestows upon his art. They have been treated most ably by Sir James Paget in an essay on the "Calamities of Surgery" published in his volume of clinical lectures. I am concerned rather to-day with the minor unsatisfactory results of operations—the true surgical disappointments, not the surgical mishaps—disappointments which are due to two main causes. Either the surgeon did protest too much, in which case his patient is disappointed; or else he carried to extreme the wholly admirable teaching of Hippocrates, Μὴ βλάπτειν, *Non nocere*—Not to do harm. It is the surgeon who is then disappointed that his timidity prevented him from reaping the full benefit of the operation. Every surgeon sings the praises of his art and the benefits to be derived from operation, but such songs of hope and success should be sung in the early days of spring and in the long warm evenings of summer. The winter afternoon of a December day in London is, I venture to think, no unfitting occasion to consider some surgical disappointments, for by knowing the cause we may sometimes avoid the disappointment. I propose to illustrate my remarks by cases which have come under my own observation, though I have very little doubt that many of my hearers will supply parallel instances, and we may thus obtain texts for a very profitable discussion.

Beginning, as we should do, with the early days of life, there are few operations more often performed than those of circumcision and for hare-lip, yet there are few which may give more disappointing results. The aim of a perfect circumcision is to remove just so much of the foreskin as is necessary to liberate the glans penis and to avoid removing so much as to leave the patient a "*curtus Judæus.*" Such a perfect operation is rare, but I do not recollect that the difficulties were ever pointed out to me. The disappointment which I have most often felt is that the cut surface of the prepuce has contracted adhesions to the glans—an accident which is especially likely to happen when the penis is ill-developed. If the mother is careless and the child is not seen for some days after the operation the adhesions may become so dense that it is impossible to break them down and the child is then in a worse condition than he was at birth. I was somewhat troubled at first by the occurrence of this accident, but now I make it a practice to see the patient at short intervals, and if there is any tendency to retraction of the glans I adopt the ritual plan of pulling back the foreskin until the corona is exposed and keeping it thus retracted by passing the penis through a slit in the gauze dressing. The constriction of the penis by the prepuce sometimes causes a little swelling of the penis, but I have never seen any ill-results follow. In the operation for hare-lip the bugbear of the surgeon used to be the formation of a notch at the bottom of the scar in the lip. This error has now been so long brought under our notice and so many plans have been devised to avoid it that I venture to think it never occurs at the present time. A much more common fault is the neglect of accurate apposition of the two red edges of the lip, which gives rise when the healing is complete to an unsightly irregularity in the red border of the lip. Every precaution, therefore, must be taken at the time of the operation to get the two upper margins of the mucous surface of the lip exactly upon the same level and to secure them by passing the first suture at that point. There is no difficulty in obtaining accurate apposition in many cases, but the proceeding is by no means easy when the cleft is uneven and one side of the lip is higher than the other.

The recurrence of adenoids is a fertile source of disappointment to parents whose children are so unfortunate as to suffer from these growths. The operation for their removal may be carried out with perfect success, but the predisposition remains. Adenoid tissue grows quickly and the original condition is soon reproduced if reliance be placed too entirely upon operative measures. Too much, therefore, should not be promised as a result of removal, for there is a growing disinclination amongst the more observant mothers to submit their children to operation.

In all these instances the disappointment can be avoided if due care be taken, but I well remember the chagrin with which I watched a baby upon whom I had operated for an imperforate anus where the rectum opened into the vagina. The bowel ended in a well-defined cul-de-sac which it was easy to open from the perineum, but do what I would the aperture closed and the fæces continued to come through the vaginal opening. The recto-vesical fistula was well defined and the defective front wall of the rectum was nicely rounded off by mucous membrane continuous with the back wall of the vagina, yet the parts were too small to allow of complete closure, and any incomplete union of the edges soon broke down. I do not know how such a disappointing result can be avoided except by waiting until the patient has attained to years of maturity.

The greatest disappointments undoubtedly occur in connexion with abdominal operations and in no operation perhaps more often than in those carried out upon the kidney. This, indeed, is so well recognised that in many cases the surgeon contents himself with speaking of an exploration of the kidney and is content to treat the condition which he finds when the kidney is exposed. Before exposure it is often impossible to detect the presence of one or more renal calculi when they are small and embedded in the substance of the kidney, nor is it always easy to distinguish a renal inflammation caused by a stone from one produced by tubercle. Even when nothing is found to explain the symptoms from which the patient suffered an exploratory operation often does good and the patient is freed from pain or discomfort in a most remarkable manner. This satisfactory result is due in part to the effect of local blood-letting, in part to the freeing of the kidney from adhesions, and in part to the division of the tense and perhaps chronically inflamed tissues surrounding it.

Disappointments sometimes await the surgeon and the patient after an exploration of the kidney. Such an one occurred lately to me. A female patient had long suffered from obscure symptoms of renal disease which had quite prevented her from following her occupation and seemed to point to the presence of a stone. I exposed the kidney, opened it on the convex border, and passed a probe along the whole length of the ureter in order to assure myself that no stone was lodged in it. The patient did excellently for some days after the operation and the lumbar incision healed perfectly by first intention. On the eighth day, however, her temperature suddenly rose to 105° F. and she had a sharp attack of pyelitis. This has become chronic, and whereas her urine before the operation was clear and free from pus it is now pus-laden. On the other hand she is free from pain and is able to perform her daily work in comfort. She is satisfied, but I am not, for I suppose that the operation set fire to a latent tuberculosis. The patient, however, is sometimes disappointed when the surgeon is satisfied—as in the case of the very troublesome people who complain of numbness or hyperæsthesia along the course of the last dorsal nerve after a lumbar exploration of the kidney. Again, both patient and surgeon may be equally disappointed—as happened in the early part of this year when I had operated for the relief of a moveable kidney. I anchored it with three stout kangaroo-tail tendons passed through the whole thickness of the lumbar wall deeply into

[1] A paper read at a meeting of the Harveian Society of London on Dec. 20th, 1900.

the substance of the kidney, and again through the body wall with the exception of the skin. For the sake of extra security I kept the patient in bed for a month instead of the usual three weeks, and by so doing I undid the good which she had received. She increased rapidly in weight, and whilst she was lying in bed her kidney once again detached itself, the result, I suppose, of a great increase of the perinephric fat. In other renal cases, again (but of these I have fortunately had no personal experience hitherto), much disappointment results from the formation of a small but troublesome fistula, although the operation is perfectly successful in every other way.

The formation of fistulæ is by no means confined to renal operations. There is no surgeon with any considerable experience in abdominal work who has not had occasion repeatedly to study their formation after laparotomies which at first promised success in every way. I have had them after excision of the spleen, after strangulated hernia, after removal of the appendix, after ovariotomy, and after opening the gall-bladder. They occur, of course, under two conditions—immediately after the operation when the escape of pus or other fluid has prevented the wound from healing, and, at a period more or less remote from the operation, when the wound has healed soundly. A fistula of the first kind can hardly be called a disappointment, as its occurrence is anticipated from the time the wound is left to granulate. The more remote fistulæ are really disappointing; for what can be more troublesome than that a wound which has healed well and soundly should inflame after a week, a month, or even a year, at first without any apparent cause, until at length a small abscess forms at or near the scar and a ligature presents? It is not always easy to explain why this happens after the longer intervals, though I have a shrewd suspicion that the cause is the same in every case and that it is due to the use of an infected ligature. The infection may be quite mild and may be situated so deeply in the strands of a stout silk ligature that the leucocytes have first to find their way into the depths of the ligature, where they become infected, die, and so cause the abscess. If this be the cause and the only cause the cure is plain—boil your ligatures. I am not quite sure, however, whether the general health of the patient has not something to do with the formation of an abscess in the more remote cases, for in the interval between the healing of the wound and the first sign of inflammation the patient appears quite well and there is no evidence of any septic absorption.

Internal strangulation of the bowel, like hernia, is fertile in disappointments. There is the wretched condition in which, after the strangulation has been relieved, the patient, as Paget says,[1] "is too exhausted to be conscious of relief and goes on dying though he be carefully fed and nursed." I had a miserable example of this a few months since in the person of a fine and otherwise healthy young man, aged 21 years, who had been allowed to suffer from intestinal obstruction beginning suddenly a week before he was sent to the hospital. I opened his abdomen and found that a Meckel's diverticulum had attached itself to the rectum and that several feet of intestine had passed under the arch thus formed and had become strangulated. There was no difficulty in relieving the obstruction by dividing the diverticulum, but the bowels were so paralysed and the septic intoxication was so deep that he died in spite of all that careful nursing could do for him. The post-mortem examination showed that he was well anatomically, for I had removed the whole diverticulum and the scar in the intestine scarcely showed. The moral taught by this case is that which nature is never tired of pointing. An operation at the earliest possible moment is demanded imperatively in every case of acute intestinal obstruction.

I have met with the same disastrous disappointment after relieving an intussusception. The following is such a case. A child, aged eight months, who had been ailing for some time, began to suffer suddenly from the symptoms of intussusception on April 7th. I opened the abdomen 13½ hours after the onset of the acute symptoms and reduced an ileo-colic invagination. The child passed a moderately good day on the 8th. His abdomen was flaccid, there was no vomiting, but his bowels were not relieved. On the night of the 9th the patient had two good motions, the first of a reddish-brown colour, the second of a natural yellow colour. The food was well taken on the 10th and the temperature fell to normal. The child appeared to be progressing favourably and I had good hopes that he would recover, for he had two more natural motions during the day. At 8 P.M. on the 10th (69 hours after the operation) the child again began to vomit a brownish fluid. He refused his food, became drowsy and cold, and fell into a condition of profound collapse. The abdomen was supple, the wound was aseptic, but the abdomen gradually distended until coils of intestine could be seen moving beneath the abdominal walls. Matters went from bad to worse, and on the 13th the abdominal wound was gaping widely and the intestines had prolapsed. They were replaced under an anæsthetic, but the child died on the following day. The necropsy showed that the small intestines were distended with flatus to within 12 inches of the ileo-cæcal valve. The distension suddenly stopped at this point, although there was no visible cause for the arrest either outside or within the intestine or abdomen. The colon, like the lower part of the ileum, was collapsed. The thickened ileo-cæcal valve projected a short distance into the cæcum. The valve and the mucous membrane for about two inches beyond it were congested, but there was no intussusception and there were no visible signs of peritonitis. Microscopical examination of a portion of the ileum which had been invaginated showed a slight extravasation of blood into the whole circumference of the submucous coat. The glands, the adenoid tissue, the circular muscular coat, and the serous coat appeared to be healthy in every respect. The individual fibres of the longitudinal muscular coat stained less deeply than they should do, and in many cases appeared to have undergone some degenerative change, for they were unduly granular and more highly retracting than usual. The extravasation of blood in the dilated part of the intestine immediately above the point of constriction was slight, but was distinctly visible between the serous and the muscular coats. The layer of external longitudinal muscle presented changes similar to those described above as occurring in the invaginated portion of the gut. The other coats of the dilated intestine were normal.

The case is instructive, for it shows that the symptoms of obstruction may re-appear and even progress to a fatal issue although an intussusception in a young child has been completely reduced. The operation in this case was not difficult, no undue force was used, the intestine was not injured, there was no peritonitis visible, and the wound at first showed every disposition to heal kindly. The digestion of food and the normal motions of the intestine for two days after the operation showed that the alimentary canal was able to carry out its physiological functions. Yet in spite of this the patient fell into a condition of what the older writers called "ileus paralyticus"—a condition which we now believe to be always the consequence of peritoneal infection or septicæmia. It is sometimes found after the successful reduction of a strangulated hernia or the successful reduction of a volvulus of the colon, and it is marked by increasing feebleness, passing into collapse, undiminished tympanitic distension, increasing vomiting, and usually, says Mr. F. Treves, but by no means necessarily, a continued inability of the bowels to act. The meteorism was not due in this case to any obstruction, and although the pathologist found no evidence of peritonitis I fear the child died from septic poisoning.

Operations upon the vermiform appendix afford so many surgical disappointments that I think that it is never wise to promise the patient or his friends too much beforehand. The great and immediate disappointment at the time of the operation is inability to remove the appendix, either because it cannot be found or because its attachments render it unsafe to complete the operation. In two of my operations for removal of the appendix it has been quite impossible to find the appendix by any reasonable amount of dissection. The appendix in each case seemed to be packed away behind the cæcum and was apparently lying parallel with it in such a dense mass of adhesions that even a prolonged search failed to find it. In another case the appendix was attached to the bladder in such a manner that its tip had ulcerated through the walls and had caused the appearance of pus in the urine. It was considered inadvisable in this case to attempt any removal of the whole appendix, which was therefore divided, the distal end being left attached to the bladder and the proximal end being removed. The patient made a good recovery and the urine was soon free from pus. Small abscesses are often found in separating the adhesions which have formed round an inflamed appendix and in these cases

[1] Clinical Lectures and Essays, p. 149.

it is not unusual to find that the wound does not heal by first intention but that a troublesome sinus is left. In other cases the scar of a wound which has united kindly at the time of the operation afterwards yields and a ventral hernia is produced, which is as disappointing to the surgeon as it is annoying to the patient.

Mental disturbances following upon a surgical operation sometimes form a remarkable series of surgical disappointments, as they often occur in patients who have passed through life without any suspicion of mental unsoundness, though the event shows them to have been in a state of unstable nervous equilibrium. The disturbances show themselves in many ways. The following cases have come under my notice during the last year. A woman, aged 60 years, came under my care with cancer of the liver associated with attacks of intense pain. She was perfectly rational and collected when I saw her at home, though her husband said that she was very obstinate and had a most domineering temper. She was admitted into hospital for an abdominal exploration, when the novelty of her situation and the bustle of a large ward at once caused her mind to wander. I waited a day or two until she had recovered herself, and then I exposed the gall-bladder and set free many adhesions which had formed between the surface of the liver and the parietal layer of the peritoneum, and thus gave her great relief from pain. Another case was that of a worthy domestic servant, aged 35 years, who had lived in the same situation for many years and had always seemed to be of average mental calibre. I tied many varicose veins in both legs and, amongst others, the internal saphenous vein high up in the thigh. The wounds had been closed, dressings had been applied, and the patient was ready to leave the operating theatre, when the spica bandage was suddenly soaked with blood. The dressings were hastily removed, the wound in the groin was re-opened, and a large hole was found in the femoral vein. The vein was at once exposed and ligatures were passed round it above and below the rent. The vein was then divided, its walls being little thicker than a piece of tissue paper, and the wound was again closed. All the wounds healed by first intention and the patient afterwards declared that the leg the femoral vein of which had been tied was the more satisfactory of the two. She showed, however, a decided inclination to the formation of bedsores and her mental condition was clearly impaired from the time of her recovery from the anæsthetic. She was garrulous and constantly talked nonsense. Another case was that a man, aged 59 years, but looking much older, whose right upper jaw I removed on account of a carcinoma which had invaded it. Directly after the operation the patient began to suffer from hallucinations and it was necessary to have him watched continuously to prevent his escape from the ward. He died a month later from septic pneumonia. These cases of mental disturbance are always distressing, for they occur as often after slight as after severe operations, and they are said to be especially frequent in the practice of gynæcologists and ophthalmic surgeons. They are quite distinct from delirium tremens and traumatic delirium and the failure of power often seems to be general, for when mental disturbance occurs the wounds very frequently suppurate even when every care is taken to prevent interference with them by the patient. Dr. S. R. Macphail[3] says that in his experience at the Derby Borough Asylum he has seen 40 cases of insanity occurring after surgical operations in a total of 990 admissions. 13 of the cases were those of men and 27 were those of women. In only nine was there any hereditary predisposition to insanity. On an average the mental symptoms first showed themselves upon the tenth day after the operation. 24 of the patients recovered, eight became chronically insane, and eight died, four of the deaths being caused by malignant disease. Sir William Mitchell Banks[4] in his recent Lettsomian Lectures has also called attention to the occurrence of acute mania after operations on the breast and points out that the mental confusion and hallucinations depend upon an unstable mental condition and not upon septic absorption or upon the use of such drugs as iodoform and carbolic acid.

Perhaps the most disastrous, but at the same time some of the best-known, surgical disappointments occur in connexion with injuries to bones. Who is there who has not seen trouble after a Pott's fracture which has been well set shortly after the accident? The slight eversion and the accompanying flatness of the foot are always causes of annoyance to the patient. But even when there has been a seemingly good result and time has been allowed to obtain firm union the original deformity may recur if the patient be unusually heavy or if for any reason the amount of repair has been miscalculated. The remedy is an easy one in theory, though it is sufficiently difficult to apply it in practice, for it consists in restraining the natural desire of the patient to get about and to attend to his business at the earliest possible opportunity. It is far better for him, and in the end shorter, to wait until the union is thoroughly sound.

Colles's fracture is fruitful in disappointments and especially when it occurs in old people. Union takes place readily enough, but the connective tissue surrounding the joint becomes so infiltrated with the products of chronic inflammation as to leave a stiff and useless wrist for many months after the accident. It is of the utmost importance, therefore, to shampoo the injured part and to begin passive movement at the earliest possible time, and this is usually on the fourth day.

Non-union is more than disappointing after the fracture of a long bone, for, in children at any rate, it leads to the most disastrous results since it is often necessary to amputate the limb. There is no means of knowing what cases are likely to end in this manner, though the absence of crepitus or muffled crepitus in an unimpacted fracture may lead to the suspicion that some of the soft tissues intervene between the ends of the bone. When there is no mechanical obstacle the tendency to non-union can be reduced by taking care to keep the two fragments of bone absolutely at rest. Thus Mr. Pickering Pick recommends that the shoulder as well as the elbow should be fixed during the repair of a fractured humerus, and in a child I certainly prefer not to trust to a plaster-of-Paris case when both bones of the leg are broken, unless the patient can be carefully watched. It too often happens in the out-patient practice of hospitals that a plaster case is applied to the broken leg of a child, who is then sent home. The mother or relative omits to bring the patient back to the hospital for a fortnight or three weeks and allows the child to sit in a chair swinging his legs or permits him to crawl about the floor. The plaster case becomes soft or the injured leg wastes a little from disuse, and the case, which fitted well enough at first, soon becomes too loose. In either case the two fragments of bone move upon each other in such a manner as to prevent the production of callus and non-union is the result. The remedy is simple, for the child has only to be kept under observation, and non-union, at any rate in children, is a very rare accident.

The formation of a conical stump after amputation is always annoying and may be disastrous to the reputation of a surgeon. It is well recognised that conical stumps rarely occur in adults if sufficient care be taken to fashion the flaps properly and to saw the bone at a sufficiently high level. Yet they do occur sometimes when every precaution has been taken and more particularly after primary amputations in largely built and robust individuals whose muscles and connective tissues shrink much more quickly than their bones atrophy.

It is sometimes quite impossible to prevent the formation of a conical stump in children and young adults, especially after amputation through the upper arm and the leg. The humerus, the tibia, and the fibula chiefly grow in length from their upper epiphyses. It may happen, therefore, after amputation that these bones grow more rapidly than the surrounding tissues and the end of the stump may taper more and more until ulceration takes place and the bones protrude. Such a conical stump is seen occasionally after an intra-uterine amputation.

Injuries of nerves are another source of disappointment in connexion with fractures either on account of the pain or because of the paralysis which is produced. Implication of the musculo-spiral nerve in a fractured humerus, compression of the ulnar nerve after an injury to the elbow, and injury to the external popliteal nerve from a fracture involving the neck of the fibula have given me considerable trouble at various times. The results of operative interference in these cases have never been very satisfactory, for though the patient is relieved he is never as well as he was before the accident and he is certainly never as well as I should have liked to see him.

Operations for the relief of chronic neuralgias are always most disappointing, for the cerebral cortex seems to become

[3] Brit. Med. Jour., 1899, vol. ii., p. 781.
[4] THE LANCET, March 24th, 1900, p. 844.

so impressed with the sense of pain that as soon as one source is removed another is made. Two such cases are under my care at the present time, the one a woman with coccygodynia, whose coccyx was fixed almost at a right angle with her sacrum, so that it pressed inwards upon the rectum; the other a man with violent pain referred to the ends of the right fifth nerve. The woman is convinced that her pain, if anything, is worse since I removed her coccyx; the man, who had a few weeks' relief after I had cut away a part of his inferior dental nerve, now suffers agonies in the terminal branches of the superior division.

Dislocations are perennial sources of disappointment, more especially when they involve the larger joints, such as the hip. The text-books on surgery teach us so glibly about the methods of reduction by manipulation that it is only by bitter experience we learn that there is another side to the question—that some dislocations cannot be reduced, that others can only be partly reduced, and that others, again, when they have been reduced, leave a useless joint. When it is impossible to reduce a dislocation it is better, I think, to wait for a time and to see what provision nature will make, rather than proceed to the performance of any surgical operation, but if the pain is very severe and the limb is very useless operative interference at an early period seems to be fully justifiable.

These, gentlemen, are some of the disappointments which attend the practice of surgery. I have no reason, however, to suppose that we have a monopoly of them as general surgeons. The ophthalmic surgeon, I know, has his troubles after operations for strabismus, or when a troublesome piece of capsule mars the effects of an otherwise perfect operation for cataract. The orthopædic surgeon is not always contented with the results of his operations for talipes. The gynæcologist too often lands himself in a sea of trouble after an apparently simple operation; whilst the general practitioner himself is soon disillusioned of the glamour of his profession and is apt to become the most disappointed of any of us, for he sees the failures of all. But in spite of this we should agree with Goethe that the most successful man is he who cares least for disappointments, though he is ever learning from his failures.

Chandos-street, W.

OBSERVATIONS ON COMPRESSED AIR ILLNESS.

BY FREDERICK R. WAINWRIGHT, M.D. McGILL, M.R.C.S. ENG., L.R.C.P. LOND.,

MEDICAL OFFICER TO THE BAKER-STREET AND WATERLOO RAILWAY TUNNEL WORKS.

THE opportunities afforded for the observation of the pathological effects of high atmospheric pressure have been relatively very few and the testimony of every additional observer may be of value in aiding in the elucidation of a rather obscure subject. It is for this reason that I venture to publish these remarks, which embody my experience and the conclusions at which I have arrived as the result of that experience. It is not my purpose to discuss the physiological effects of compressed air on the human economy, for in my opinion observations along this line made during the progress of an engineering work of great magnitude would not afford trustworthy results, there being so many factors apart from the actual air pressure which would tend to render one's conclusions inexact. Neither is it possible within the limits of this paper to give an account of the history of the use of compressed air in engineering operations from the invention of the diving bell in the sixteenth century up to the present time. A very complete account of the subject has already been given by Dr. E H. Snell in his excellent little book on "Compressed Air Illness," together with his own experience while acting as medical officer to the Blackwall Tunnel.

It seems probable that in the future compressed air will be used to a much greater extent than it has been in the past and the knowledge as to the best means of reducing to a minimum the suffering inseparable from this class of work will be of value not only to the workmen employed but also to the employers themselves. At the Baker-street and Waterloo Railway tunnel works we had, considering the pressures employed and the length of the shifts, remarkably few cases of illness. The opinions which I hold as to the reason of this comparative immunity I will endeavour to express later.

It is a matter for regret that so much work under compressed air has been done in which no medical records were kept, and this is not only the case with undertakings carried out many years ago, for even in so recent a work as the St. Clair Tunnel, under the St. Clair river in America, there seem to have been no accurate medical records, though I gather from a general description of the tunnel that there was much illness and that several deaths occurred. Among the best records of the last 30 years are those of Dr. Jaminet of the St. Louis Bridge and Dr. A. H. Smith, the medical officer at the construction of the Brooklyn Bridge. But while admitting the value of their observations I totally disagree with their conclusions as to the pathology of the condition and also as to some of the factors which are instrumental in its production.

For the better understanding of the conditions under which the men employed in the compressed air worked it will be well for me to give a short description of the tunnel. It was only in a certain portion of the tunnel that the use of compressed air was necessary—that part of it which ran through the ballast in the bed of the river Thames. The tunnel was reached by two shafts sunk through a staging erected in the river, the top of the tunnel being a few feet below the bed of the river. Before the shield had reached the ballast the river-crossing section of the tube was cut off from the other part by a brick diaphragm into which a lock, with doors closing airtight, was fitted. At each end of the lock was a tap for the purpose of admitting the air from the pressure section when entering or for allowing it to escape into the other portion of the tunnel when leaving the compressed air. It was possible to fill the lock up to 30 pounds per square inch in one and a half minutes and to empty it at the same pressure in one and three-quarter minutes.

A few remarks regarding the astonishing rise in temperature when "locking-in" may be of interest. I have noted the mercury rise, when "locking-in" with a "full tap" at 30 pounds pressure, from 60° F. to 115°. During "locking-out" I have seen it fall from 90° to 46°. Foley assigned a very important place to this cold misty atmosphere in the production of the illness. While quite admitting that such sudden variations in temperature are not advantageous I do not consider that they play the smallest part in the etiology of the condition. The air was conducted from the air compressors to a large tank beneath the water, passing through this before being delivered into the tunnel, the idea being to cool it to some extent. I doubt whether this plan was very effectual, for on several occasions I took the temperature of the air as it left the supply pipe and found it to vary between 110° and 120°, according to the speed at which the air compressors were running. As it passed along the tunnel and escaped at the face it cooled to about 85°.

The pressures in the tunnel varied with the state of the tide and the nature of the ballast met with. As a general rule at low water the pressure was from 23 to 25 pounds per square inch, at high water from 28 to 30 pounds, and on several occasions it was as high as 35 pounds per square inch. It is to be remembered that these figures refer to pressures over and above the 15 pounds per square inch normal atmospheric pressure.

VENTILATION.

When it became necessary to use the air pressure the river-crossing tunnel had already progressed so that the face or shield end was 123 feet from the lock. Thus, to begin with, there was a fairly spacious chamber for the men to work in. The ventilation during the whole time that the shield was in the ballast was excellent, on account of the very free escape of air through the gravel at the face. I was in the habit of estimating three times daily the amount of air pumped into the tunnel, and found that it gave an average amount per hour of about 6000 cubic feet for each man. This amount was well distributed, for, on my recommendation, the supply-pipe emptied just at the lock, thus causing the air to sweep from one end of the tunnel to the other in order to escape at the face. Before this was done the air at the face had shown 0·06 per cent. carbonic acid gas and at the lock end 0·09 per cent. After the alteration in the pipe the whole tunnel showed the same amount, varying between 0·06 and 0·07, which degree of purity was maintained until Oct. 4th. On this latter date, the shield being again in

clay, the air could not escape at the face and we had to depend on artificial ventilation. The percentage of carbonic acid gas rose at once to 0·081, then to 0·1, and could not be brought below 0·075 till Oct. 28th when the compressed air was dispensed with. How this difference in purity affected the amount of illness I will point out further on. The tunnel was lighted by electricity which, by obviating the necessity for the use of candles or gas, materially improved the conditions. The men were divided into three gangs, each gang doing a "shift" of eight hours. The men working in the face, and who were exposed to wet, were provided with clothes which they changed on leaving the tunnel and which were dried before being again used. A well-warmed room was also provided for the use of the men to induce them to rest before going home, but of this they never took advantage. Hot coffee was supplied to them on leaving the tunnel and was much appreciated by them. I have no doubt that it was of benefit after the cold atmosphere of the lock. Smith states that it appeared to relieve to some extent "the nervous prostration which marked the return to the open air." I was never able to detect the smallest sign of nervous prostration in the men coming off a "shift," so I cannot offer any opinion as to the value of coffee in the condition. Before allowing any man to commence work in the compressed air I subjected him to a physical examination, paying particular attention to the condition of his heart and arterial system. Very stout men and those advanced in years were not accepted, though considerable latitude may be allowed in these conditions. Alcoholism, I consider, should debar a man from this class of work, and I rejected any man who on presenting himself showed signs of recent excess. Of the 120 men passed 88 had previously worked in compressed air, while 32 had no previous experience. The youngest man was 19 years of age and the oldest was 52 years, the average age being just over 30 years.

In all, during a period extending from May 23rd to Oct. 28th, 1900, 47 cases of illness due to work in compressed air came under my treatment. These cases occurred in 40 different men, two having three attacks each and three having two attacks each. In these figures I include only those cases which were of sufficient severity to call for treatment. I do not believe that a single man escaped a slight twinge of pain at some time or other to remind him of the nature of his occupation, but these were very evanescent and they cannot be dignified by the name of illness.

PATHOLOGICAL EFFECTS.

The pathological effects of compressed air are manifested at two distinct times and are due to entirely different conditions. The first class is purely mechanical and is noted when going into, or when actually in, the pressure. The second class comprises those symptoms which are only seen after leaving the compressed air.

The symptoms consequent upon mechanical pressure *per se* consist of pains in the ears, frontal and maxillary sinuses, and in carious teeth. Pain in the ears is common when "locking-in" for the first time, especially if the pressure be rapidly admitted, but is rarely met with afterwards unless there be a condition of "cold in the head," pharyngitis, &c., which interferes with the normal patency of the Eustachian tubes. The pain has all grades of severity, from a mere sense of oppression to the most acute agony. It is, of course, due to the fact that if the Eustachian tubes are blocked the pressure outside the drum is greater than that in the middle ear and the membrane is pushed forcibly inwards. If the Eustachian tube remains closed and the pressure be sufficiently great rupture of the tympanum may ensue. This actually occurred in two cases which came under my notice, in one of which I myself was the patient. The injury had no permanent ill-effects in either case. Apart from actual rupture the relative vacuum in the middle ear brings about a congestive condition of its lining membrane which, according to Dr. Snell, may result in inflammation which may be followed by suppuration. I had no case of this kind brought to my notice. The pains in the frontal and maxillary sinuses do not call for special mention. In my experience they were very infrequent, and I never observed them apart from a catarrhal condition of the nasal mucous membrane. In these cases, during "locking-out," there may be a discharge of blood-stained mucus from the nose. The foregoing conditions are, as before stated, dependent on mechanical causes, and cannot well be considered as part and parcel of compressed air illness. Furthermore, in my experience, they never occurred apart from an abnormal condition of the mucous membrane of the nose or pharynx, therefore I cannot regard them as a necessary accompaniment of exposure to an atmospheric pressure above the normal.

In the second class are those symptoms which are only manifested after leaving the pressure. These symptoms, though perfectly distinct from each other, are, I believe, all due to the same underlying pathological condition. The most frequent and characteristic manifestation is pain, usually occurring in the joints, less frequently in the muscular structures of a limb. In only one of my cases were the muscles of the trunk affected. The pain may be confined to one joint or may be present in two or more joints, the latter condition being the more usual one. In my series of cases the knee was the only joint to be affected singly and this only occurred in four cases out of the 47. The knee-joint is more frequently attacked than all the other joints combined, and in 19 of my cases the knees were the seat of pain apart from any other manifestation, and in 16 cases pain in the knees co-existed with other symptoms. Next in order of frequency came the elbow-joint which was affected in 11 cases, then the shoulder with seven cases to its credit. The hip-joint was the seat of pain in five cases, the wrist in three cases, and the ankle in one case. Any number of joints may be simultaneously affected. The pain varies from a mild ache to the most severe suffering, and in well-marked cases I know of no condition which produces a greater degree of physical agony. The patient becomes pallid and perspires freely, the pulse is hard and rapid, and unless he is possessed of a considerable amount of self-control the man cries and groans. The pain has been described to me as "a feeling as if the joints were being twisted off" or "as if a dog were gnawing a bone." If untreated the pain may disappear in five or six hours or it may persist with diminished intensity for several days or even weeks. The onset of the pain may be at any time after coming out of the compressed air. In some cases it comes on immediately, in others not for several hours. The longest interval in my own cases was five hours, but Dr. Snell gives notes of a case in which 14 hours elapsed between leaving the pressure and the appearance of the pain. As a rule not more than two hours elapse. I have almost invariably found that the sooner the symptoms appear after leaving the pressure the more severe they are. Swelling is not common in the joints, but is invariably present if the pain is situated in the muscles. I have never found any tenderness present, even vigorous friction relieving, rather than aggravating, the pain. I am aware that on this point my experience is directly contrary to that of most other observers. Epigastric pain and vomiting may occur and are usually very severe and refractory to ordinary treatment. In well-marked cases the pain is intense and the vomiting is persistent. This condition only occurred in about 10 per cent. of my cases and Dr. Snell only found it in a small percentage. On the other hand, Dr. Jaminet describes it in 78 per cent. of his cases and Dr. Smith in 24 per cent. Formication or itching of the skin followed by redness may occur; only one such case came before my notice.

Cerebral symptoms.—Headache and giddiness are not uncommon as following exit from the compressed air. In four of my cases giddiness was very pronounced, the patients reeling and falling down. Pain in the head is not necessarily present but may exist along with the giddiness. Vomiting is not uncommon in these cases, being cerebral in character and quite apart from any gastric disturbance. Visual troubles, such as diplopia and flashes of light, may be present. As a usual thing these symptoms are of short duration and they yield very quickly to appropriate treatment. Dr. Snell gives notes of nine cases of vertigo occurring after exit from compressed air. The onset in all the cases was sudden, and in six of them some amount of deafness was present, tinnitus occurring in four cases. In some of these cases the vertigo lasted for many months. No case of auditory vertigo due to working in compressed air came under my notice, so I am unable to speak of it from personal experience.

Paralysis.—Paralysis only occurred in one of my cases, the condition being one of paraplegia with involvement of the bladder and rectum. Dr. Snell only had two cases at the Blackwall Tunnel, while in New York Dr. Smith observed it in 15 per cent. of his cases, and at St. Louis it was present in 61 per cent. Dr. Smith says that the paralysis most often affects the lower half of the body but may include the trunk

or arms. According to him pain may or may not be present in the limbs even when tactile sensation is lost. In my case the only pain felt was on each side of the spine in the lower lumbar region.

Death.—Death is not a very uncommon sequence of work in compressed air, and it may occur suddenly on leaving the pressure or after previous paralysis or other symptom. Out of 76 cases of illness at St. Louis Bridge there were 12 deaths. Dr. Smith had three deaths in 110 cases, and four deaths occurred in sinking the caisson for the Londonderry new bridge and this with a pressure of only 28 pounds. As far as I can discover, the Forth Bridge and Blackwall Tunnel were the first works using high pressures which were put through without a fatality. At the Baker-street and Waterloo Railway Tunnel works we had no fatal case.

DIAGNOSIS.

When we consider the devious workings of that peculiar statute known as the Employers' Liability Act it becomes a matter of some importance that these cases should be carefully diagnosed and differentiated from other conditions having somewhat similar symptoms. It must also be remembered that the pains may possibly be assumed, the man hoping thereby to be a financial gainer. I agree with Dr. Snell that the most important points in the diagnosis are the time and manner of the onset. Physical signs being rarely present in any form, there is little else to go upon. Personally I would not admit a case to be due to compressed air where twelve hours had elapsed from the time of leaving the pressure till the onset of the symptoms. Rheumatism, osteomyelitis, and arthritis deformans are LOT likely to be mistaken for the joint pains of compressed air illness. The absence of any rise of temperature in the latter, together with its sudden onset and freedom from physical signs, will serve to distinguish it. I here insert a note on one of my cases which was interesting, not only from the point of view of diagnosis, but also because I am unable to find a similar case recorded in any of the writings on compressed air illness which I have been able to consult.

CASE 1.—The patient, a strong, healthy man, aged 50 years, rather inclined to be stout, had worked in compressed air before coming to the Baker-street and Waterloo railway tunnel works and had been employed at these works for some time. On August 29th, 1900, he came out of the tunnel at 6 A.M. after doing an eight-hour shift. At about 6.30, when he reached home, he felt a pain "in the front of his chest." He at once got very short of breath and felt very distressed though the pain was very slight. He had a feeling of impending death. He managed to return to the stage, stopping every few yards to get his breath, and he reached there at 10 15 P.M. and I at once saw him. He was then in great distress and was unable to speak more than a few words at a time. His face was very dusky. I have never seen more severe dyspnœa. The pulse was 120 and very feeble and the respirations were 45. I at once auscultated his chest and found a most peculiar state of affairs. Posteriorly there was nothing abnormal and the supraclavicular regions were negative. But all over the front of the chest a most unusual sound was heard, audible throughout the whole respiratory cycle. I have never heard anything like it before, consequently I am unable to give any comparative description of it. It was very harsh and creaking, sometimes tearing, in character, and most marked between the third and seventh costal cartilages on the right side. I then percussed the chest with absolutely negative results, and on applying my stethoscope immediately afterwards I found that all the auscultatory phenomena had disappeared. There was no cardiac displacement and there were no murmurs, but the sounds were very distant and feeble. As the man was evidently in a serious condition I at once put him into the medical lock and re-compressed him up to 18 pounds, at which point all dyspnœa had gone and he felt perfectly well. This pressure was allowed to "leak out" in 70 minutes and the patient came out of the lock feeling quite well. There was no return of the symptoms. No physical signs could be discovered after coming out.

Now, in this case there might have been considerable difficulty in the matter of diagnosis. The mode of onset certainly pointed to compressed air as the causative factor, but it was hardly possible to be certain until the immediate cure of the condition by re-compression removed all doubt as to the nature of the trouble.

ETIOLOGY.

The one essential for the production of this illness is, of course, a sojourn in an atmospheric pressure above normal. This, however, does not in itself cause any of the symptoms given above but only brings about the conditions necessary for their development after the subject returns into a lower pressure. It must be thoroughly understood that there are no manifestations of this illness so long as one remains in the compressed atmosphere; it is my belief that a man might live in a pressure of three atmospheres for an indefinite time without necessarily experiencing any ill-effects. In addition to the essential cause there are others factors which are very important, the first two in order of importance being the length of stay in the pressure and the amount of carbonic acid gas present in the condensed atmosphere. The influence which the latter has upon the former of these two factors is so great that it is hard to separate them in considering the share which each one has in the production of the illness. Dr. Snell has enunciated a law that the amount of illness varies inversely with the amount of fresh air supplied. With this I thoroughly agree, and when considering the length of time spent in the pressure the carbonic acid gas factor must be thought of, and, within certain limits, it may be laid down that the time which may be spent in the pressure without resulting bad effects depends very largely on the percentage of carbonic acid gas present.

Leaving aside the question of ventilation for the moment and assuming the percentage of carbonic acid gas to be a fixed quantity, then the length of stay in the pressure is, in my opinion, the most important accessory in the etiology of the disease—far more important than the time employed in leaving that pressure. At the Baker-street and Waterloo railway tunnel there was no case of illness occurring in a man who had not been at least three consecutive hours in the pressure. In addition to the regular eight-hour workers there were many men, such as fitters, plate-layers, gangers, &c., who spent variable periods of time in the condensed atmosphere, so that I had an excellent opportunity of proving this point.

Regarding the relative importance of the length of stay in the pressure as a factor in the production of the disease opinions have differed. Dr. Jaminet recommended short shifts at the St. Louis Bridge, but nevertheless he considered the time spent in "locking-out" as of primary importance. According to Dr. Snell, Mr. Eads, the chief engineer of the bridge, was the first to call attention to the fact that the length of stay was more concerned in the production of the illness than the rapidity of "locking-out." Dr. Smith attached great importance to the length of stay in the pressure and he formulated the law that the danger is as the degree of pressure to which the person has been exposed multiplied by the duration of the exposure. At the Brooklyn Bridge the pressures rose gradually, with the depth of the caisson, from 18 pounds to 36 pounds per square inch, the length of the shifts being four hours at first, gradually reduced to two hours as the pressure increased. Even with these short shifts Dr. Smith reports 110 cases of compressed-air illness as occurring in four months. At the Baker-street and Waterloo railway tunnel, where eight-hour shifts were worked, there were only 47 cases in five months. At first sight these figures would appear to show that the length of stay does not play a rôle of any importance in the production of the illness. But it is precisely here that the carbonic acid gas factor comes in and proves itself to be of such importance. At the Brooklyn Bridge caisson the air contained 0·33 per cent. of carbonic acid gas, while at the Baker-street and Waterloo railway tunnel, as has already been stated, the percentage up to the last three weeks was kept at from 0·06 to 0 07. Dr. Smith seems not to have considered ventilation as of any importance, and he makes the remark that "this amount (0 33) of vitiation was found not to affect the men unfavourably." In my opinion it was just that vitiation which was responsible for his large number of cases. No doubt it also had much to do with the "nervous prostration" which he observed in men coming out of the pressure. It is true that Dr. Smith had a larger number of men than were employed at the Baker-street and Waterloo railway tunnel, but had we worked in four-hour and two-hour "shifts" instead of in "shifts" of eight hours the number of our cases would, in my opinion, have been insignificant.

Dr. Snell claims to have been the first to point out the relationship between the amount of illness and the fresh air supplied to the compressed air-space, and he gives some very interesting tables from his experience at Blackwall in support of his views. My own observations on this point were necessarily limited as the air-supply was large and constant up to

nearly the end, but the figures I am able to give are, I think, sufficiently striking. From May 23rd to Oct. 4th, with an average of 6000 cubic feet to each man per hour, there were 34 cases, say, eight cases per month. Following this with an average of 1700 cubic feet to each man per hour there were 13 cases in a period of 12 days. I found also that the cases occurring during the latter period came on sooner after leaving the pressure and were of greater severity than those occurring during the time of good ventilation.

I do not assign a very important position to rapid "locking-out" as a cause of the illness, though I am firmly of the opinion that could this process be sufficiently prolonged it would probably altogether prevent subsequent symptoms. But in order to achieve this result three-quarters of an hour at least would be required to be spent in coming out of a pressure of 30 pounds to the square inch, and this, from an economic point of view, would be impracticable. Some observers have laid down very precise mathematical rules as to the length of time to be spent in reducing given pressures, though it is difficult to see on what these rules are based. Dr. Smith says that five minutes should be allowed for each additional atmosphere, while Dr. Jaminet gives one minute for each additional six pounds of pressure. At the Baker-street and Waterloo railway tunnel it was possible to "lock-out" of 30 pounds pressure in one and three-quarter minutes during the first three months. After that the exit tap was altered so that to leave the same pressure required at least six and a half minutes. This alteration did not in the slightest degree affect either the number or the severity of the cases.

There are some minor predisposing causes which have been assigned different degrees of importance by various authorities. Among these newness to the work, age, alcoholism, and obesity are the chief. With regard to an old hand being less liable to compressed-air illness than a newcomer opinions differ. Dr. Smith strongly adheres to this view, though admitting that some very severe cases occurred among old hands. Dr. Snell does not admit the increased liability of a new hand to the disease, but says that it is very difficult either to prove or to disprove it. Personally it is a point upon which I am uncertain, though my figures would tend to show that a man is more susceptible when he first begins this class of work than after having been engaged in it for a greater or less period. Of 88 men who had previously worked in compressed air 25 were affected, or 28·4 per cent., while of 32 men who had had no previous experience of such work 15 were affected, or 46·8 per cent. Of the 40 men who were affected, in 16 the illness occurred after the first "shift"—that is to say, in 40 per cent.

Age has been considered to be an important factor, the amount of illness varying in proportion to the age. The only statistics which I can find are those given by Dr. Snell from his own experience, and covering, as they do, a large number of men of all ages they have an especial value. He concludes that below the age of 20 years men are singularly exempt from this illness; between the ages of 25 years and 45 years the liability to illness does not vary to any great extent, but is about twice as great as between the ages of 20 years and 25 years, and that after the age of 45 years the liability increases very considerably. My own conclusions, though based on a much smaller number of men, agree with those of Dr. Snell, and I am of the opinion that young men stand compressed air better than do those of more advanced years. But it is only in the very young ones that a marked immunity is observed, the amount of illness from 25 years to 40 years not varying much according to the age.

Fulness of habit has been noted by many observers as specially predisposing to the untoward effects of compressed air. Dr. Smith made a strong point of this in his essay on caisson disease, and he gives figures in support of his views which show that of 86 cases of illness the spare men were responsible for 28, the medium for 22, and the heavy for 36. He adds, "Considering that among labourers below the age of 45 (and none were above that age) the class described as heavy are very much in the minority these figures are sufficiently striking." As I excluded all men who were conspicuously stout I have not been able to form any opinion from observation on this point. But I am quite sure that the cases occurring in moderately large men were neither more numerous nor more severe than those in men of light build.

Alcoholism has been said to strongly predispose to compressed air illness, a man who has been drinking heavily being frequently a sufferer, and certainly some of my most severe cases occurred after a too free indulgence. But this is a point upon which it is hard to come to a satisfactory conclusion, for the reason that, with two exceptions, all the men used alcohol, the majority freely, so that no comparative statistics could be obtained. But I am inclined to the view that alcohol is a predisposing factor of considerable importance.

Muscular exertion following upon exit is insisted on by Dr. Jaminet as being of importance in bringing about the symptoms, and he noted a diminution in his cases when the men were drawn up instead of reaching the top of the caisson by climbing the ladders. Dr. Smith also supports this view, but admits that he has no figures to offer. At the Baker-street and Waterloo railway tunnel the men were drawn up in a cage and were forbidden to mount the ladders, but always hurried away as soon as they reached the top. Two of the men used bicycles, riding home a distance of six miles immediately after coming out of the compressed air, neither of them having an attack throughout the whole five months. I have never been able to see any reason for supposing that muscular exertion after exit increases the liability to the illness though I do not deny the possibility of its being so.

PATHOLOGICAL THEORIES.

Very many theories have been put forward in an endeavour to explain the manner in which compressed air causes the symptoms for which it is responsible. But possibly even more surprising than their number is the fact that so many of these elaborate theories do not in any way harmonise with the observed symptoms and conditions. In many cases it appears as though, so long as the theory happened to be vague and abstruse, its sponsor was perfectly indifferent as to whether or not it could be reconciled to the facts. The symptoms have been variously ascribed to exhaustion, hæmorrhage, rheumatism, congestion of various parts, carbonic acid gas poisoning, and supersaturation of the blood by the compressed atmosphere. It would be quite impossible within the limits of this paper to give, with any sort of completeness, the arguments put forward by those who happen to pin their faith to one or other theory. All that can be done is to examine them in a general way and to attempt to point out where, in my opinion, they appear to fall short.

The exhaustion theory is based on the hypothesis that an increased metabolism follows a stay in compressed air owing to the greater amount of oxygen present. This is purely hypothesis, for, as Dr. Snell points out, no experiments have as yet proved that any such increased activity of the vital processes does occur. On the contrary, many observers have arrived at the conclusion that there are no grounds for such a belief. Personally, though my observations were clinical and not experimental, I have not been able to find any reason for holding that work in compressed air is associated with increased metabolism. Appetite has been said by many to be increased and Dr. Smith says in regard to this that it "seems to point to an increased waste of tissue to be supplied by a greater consumption of food," though he would not accept the explanation as conclusive, believing that this could not occur without increased temperature. I do not presume to doubt those who say that appetite is generally increased, but in my own experience I have not found such to be the case. I carefully questioned some 30 of the more intelligent of the men regarding their appetites when working in compressed air. Only two said that they ate more, the majority that they noticed no alteration, while a few stated that they did not use as much food. Neither is there any rise in temperature. But let us admit, for the sake of argument, that this increased tissue metamorphosis does occur, can we account for the symptoms in this way? Dr. Jaminet held an affirmative opinion, and in fact his treatment consisted altogether of stimulants and nourishment, but by what process of reasoning he arrived at this conclusion it is beyond my power to conjecture. My own opinion so thoroughly agrees with that of Dr. Snell that I cannot do better than quote his own words: ".....But if severe and often excruciating pain in the limbs, and elsewhere, paralysis of the legs, bladder, and rectum, and sudden death, are each and all to be ascribed to 'exhaustion,' this term must surely be employed in some more special and technical sense than is usual." Furthermore, this theory offers no explanation of the fact that the illness depends largely on the amount of carbonic acid gas present—i.e., the less oxygen the more illness. Neither does it account

for the curative action of recompression in these cases nor for the complete absence of symptoms so long as one remains in the compressed air.

The theory that carbonic acid gas produces the illness by direct poisoning requires no more refutation than the statement that the symptoms of poisoning by this gas bear no resemblance to those met with in compressed-air illness.

Congestion of the brain, spinal cord, and other organs is considered by Dr. Smith in his essay on caisson disease, by Dr. Moxon in the Croonian Lectures in 1881, and by many other observers to be the cause of this illness. Dr. Smith says that "it is probable that the pathology of this disease is not entirely uniform in all cases," but does not doubt that congestion is the chief element in it. But in his further elaboration of this theory he assigns congestion the chief and only place, although not bringing forward a single fact which goes to prove his contention. He begins by making the statement that the centres will be congested at the expense of the periphery in a compressed atmosphere, and having laid down this law in no uncertain manner deduces a second law "that firm and compact structures will be congested at the expense of those more yielding," and on top of this a third law "that structures within closed bony cavities are congested at the expense of all others." Now it is the easiest thing in the world to deduce a law from a statement, the difficult matter being to be quite certain that the statement is correct. Does the blood, as Dr. Smith says it does, pass from a place where the pressure is greater to one where it is less, and if so, where does it go to find a place which is not already filled with matter, either fluid or solid, or how can it increase the tension in these central parts when, as Dr. Snell well puts it, "blood-pressure is everywhere raised and every one part of the body presses with greater force on every other part"? The only compressible parts are the free gases in the alimentary canal and I can corroborate Dr. Snell's opinion that this potential space is principally occupied by the abdominal wall being pressed in, as, from my own observations, the latter is the case when one goes into a compressed atmosphere. If the blood under pressure leaves, say, the periphery of a limb, how does it do so except as a result of compression of that limb? Dr. Smith says that solid structures resist compression. How, then, are the fluids contained in the solid structures going to be driven out of them? It would seem as reasonable to say that one might by compressing a glass bottle squeeze water out of it without altering its shape. In order for the pressure to act on the blood it must necessarily do so by compressing surrounding structures. But in compressed air there is not the least evidence of this taking place. The limbs are not altered in the least degree either in size or in shape. Dr. Smith says that superficial veins are obliterated and that the skin is anæmic, and he even makes the statement that the hands are shrunken and shrivelled owing to the blood being squeezed out of them. Now I have repeatedly examined the men while in the pressure in order to ascertain to what extent I could corroborate these observations of Dr. Smith's. In my experience I can emphatically say that these phenomena did not occur. The skin does not become anæmic, the veins are not effaced, nor are the hands altered in appearance in the slightest degree. But on other grounds it is difficult to admit the engorgement of the internal structures assumed to occur by the exponents of this theory. Is it reasonable to suppose that a man could work, and work hard, for eight consecutive hours with his brain, spinal cord, liver, &c., in such a congested state, and could do his work without the slightest feeling of discomfort and keep it up, on and off, for years without discoverable ill-effects? To my mind it is most unreasonable. Again, how does this theory agree with the actual symptoms of the illness? Dr. Smith holds that the vessels both in the congested and anæmic parts will suffer from a loss of tone which will bring about a lowering of tension in the vascular system. He also appears to believe that while in some cases the pains are of local origin in most cases they are spinal. I believe all the joint and muscular pains to be local and not spinal in origin. And in any case will the fact that the vessels are suffering from loss of tone be sufficient to give rise to a pain of such intensity? Can the case of cardiac dyspnœa to which I have referred be put down to congestion, spinal or otherwise? Although Dr. Smith did not use recompression as a therapeutic measure he was impressed with the fact that when a man returned into the pressure the symptoms vanished. He says that he would expect recompression to be of special value in "paralysis not dependent on extravasation of blood." But if paralysis in common with the other symptoms were dependent on congestion, how would re-compression be of service? It would simply bring about congestion of the cord once more. Dr. Smith does not attempt to explain why he thinks re compression would act beneficially, and if one were held to the congestion theory it could not be satisfactorily explained.

In the *New York Medical Record*, 1890, Dr. Corning attributes the symptoms to anæmia of the cord. But it is only in exceptional cases that there are any symptoms which can properly be referred to the cord, and it is perfectly justifiable to suppose that the same cause is at the bottom of all the symptoms, depending altogether for its effect on the part of the body upon which it acts. Finally, neither of these theories explain why carbonic acid gas should be a factor in the production of the illness only second in importance to the pressure itself.

Supersaturation of the blood.—Now we come to the theory which has for its foundation the law of Dalton, which enunciates that fluids absorb gases in direct proportion to the pressure. Water dissolves at 10° C. and under one atmosphere pressure oxygen 0·028 part, nitrogen 0·014 part, carbonic acid gas 0·90 part. It is held that during a sojourn in compressed air the blood becomes charged with the atmospheric gases proportionately to the pressure and that after exit, the pressure being removed, the blood is no longer able to hold the air in solution and it may become free in the vessels and surrounding tissues and thus give rise to the various symptoms met with. We have in this argument an adequate explanation of the symptoms not only of joint pains but of paralysis and other manifestations. I am of the opinion that the case of cardiac dyspnœa which I have recounted can be explained very reasonably as being due to extravasation of air into some situation where it caused pressure on, and consequent embarrassment of, the heart, though what that exact situation was I confess that I am not able to say. Now regarding the absorption by the blood of gases under pressure it has been shown by Bert that such absorption does take place although not exactly according to the rule laid down in the law of Dalton. Hoppe found that in animals killed by a rarefied atmosphere there were bubbles of free air in the blood. He concludes that the same effect takes place in passing from a condensed to a normal atmosphere. Bucquoy considered that in a compressed atmosphere the amount of gases absorbed by the blood increased in accordance with physical laws and that on decompression gas must escape and may cause in some cases joint and muscular pains and hæmorrhages. Dr. Snell as a result of his observations strongly supports this theory of supersaturation of the blood. Now what arguments are there against the tenability of this theory? I have carefully observed every case of compressed air illness which came under my treatment and have considered the conditions which appear to bring about an increase or a decrease in the number of cases, and I have been unable to find any fact which cannot be reasonably explained if we accept supersaturation of the blood as the underlying cause of the symptoms. Dr. Smith, it is true, objects to this theory on the very insufficient grounds that frequently the symptoms do not appear until several hours after leaving the pressure, whereas, in his opinion, if the symptoms were produced by free bubbles of air in the blood-vessels this condition should be at its maximum at once after leaving the pressure and should give rise to the symptoms immediately. His second objection is that the fact of the "comparative immunity from danger which results from repeated exposures to compressed air" could not be explained if the action were due to purely physical causes. He says: "The obstruction of the vessels described by Bert is a condition of which the system could never become tolerant by frequency of repetition." The first objection may be answered by pointing out that the disengagement of the air from the blood is not an instantaneous process, and that very many of the fine bubbles may have to collect before even a capillary vessel can be blocked, and, as Dr. Snell further points out, a still greater collection must take place before stretching and rupture of the capillaries can ensue. Regarding Dr. Smith's second objection it may be said that the comparative immunity acquired as a result of repeated exposures to compressed air is as yet not proven, though personally I am inclined to the opinion that some degree of immunity may result. But even if this be admitted I can see no reason why the vascular system should not adapt itself to this condition equally

as well as to the condition of congestion described by Dr. Smith. Probably in many of the cases the vessels do not rupture, but the air passes through them into the surrounding tissues. Why should not the vessels acquire a resistance to this or to rupture as well as to congestion? This theory is capable of explaining why the length of time spent in a condensed atmosphere should be of such moment, for saturation of the blood will only take place more or less gradually. We can also see why higher pressures are more dangerous than low ones if we admit the operation of Dalton's law in these cases. It also explains why the symptoms are never observed so long as one remains in the pressure, but only after exit. Furthermore, I am satisfied in my own mind that this theory affords a reasonable and scientific explanation as to why an increase in the carbonic acid gas should bring about an increase in the amount of illness and also why, with an atmosphere containing 0·06 per cent. carbonic acid gas at the Baker-street and Waterloo railway tunnel, we had no cases occurring under a three hours' sojourn in the pressure. When we consider the relative solubility of oxygen, nitrogen, and carbonic acid gas, it is within the bounds of probability that the latter is the one dissolved in greatest amount in the blood, though present in such a small quantity in comparison with the other component gases of the atmosphere. The application of the law of Dalton explains why pressure, length of stay in that pressure, and amount of carbonic acid gas present should be so intimately connected one with another that it is impossible to consider one without the others. It is true that Bert in analysing the bubbles of air obtained in his experiments on animals found them to consist chiefly of nitrogen. But as Demarquay, quoted by Dr. Snell, has shown, free gases existing in the tissues of the body are absorbed at different rates, and while carbonic acid gas is absorbed in 45 minutes nitrogen may be discovered after several weeks. Is it not possible that the length of time intervening between death and necropsy in Bert's experiments may have been sufficient for the disappearance of the carbonic acid gas? This theory also enables us to comprehend why rapid re-compression followed by a long "locking-out" are in a large majority of cases curative in all forms of the illness, the air being re-absorbed and the gradual "locking-out" enabling it to escape through the lungs. It also accounts for the fact that the sooner re-compression is practised after the onset of the symptoms the more satisfactory are its results.

MORBID ANATOMY.

There having been no fatal cases at the Baker-street and Waterloo railway tunnel works I have had no opportunity of seeing for myself the post-mortem conditions present. There have been a fair number of necropsies following death resulting from compressed air, but many of them seem to have been incompletely performed. Congestion of various organs has usually been present and in some cases there has been effusion beneath the arachnoid and blood-clots under the dura mater of the cord. Dr. Smith details one of his cases in which Dr. Janeway of New York performed the necropsy. Death had taken place suddenly within two hours of exit. Nothing abnormal was found except congestion of the lungs. It is not stated whether the cavities of the heart were examined for free air bubbles. The spinal canal was not opened. So far the post-mortem examinations made in this condition are not absolutely reliable, for they seem to have been conducted, as far as can be made out, without the precautions necessary for the discovery of free air in the tissues and vessels. The experiments of Bert on animals seem to have been followed by much closer post-mortem investigations.

REMOTE EFFECTS OF WORK IN COMPRESSED AIR.

Does the human organism suffer any ill-effects which may be described as chronic as a result of being subjected to the action of compressed air? I can only say that I have never been able to discover anything which would lead me to answer this question in the affirmative. Many of the men who came before me had worked on and off in compressed air for periods of five, six, and seven years, yet I was unable to find any pathological condition in their organs or arterial systems except in one case—viz., that of a man, 42 years of age, who had worked for varying periods during the last seven years in compressed air and who showed marked arterio-sclerosis apart from any cardiac or renal condition which could be discovered. This sclerosis may have been caused by his occupation, but it is impossible to say definitely that it was.

Regarding the paleness of the face and the general unhealthy appearance of compressed-air workers insisted on by Dr. Smith, I may say that I was not able to detect a greater degree of pallor in these men than was present in men working in other parts of the tunnel, where compressed air was not used, and which is found in most men working underground. Dr. Snell says in this connexion that at the Blackwall Tunnel as ventilation improved the pallor became less marked, so that eventually he could not pick out an air-pressure man by his complexion though previously he had been able to do so.

TREATMENT.

In the great majority of cases only one treatment is necessary and that is re-compression. For this purpose we had a medical air lock erected on the stage consisting of a boiler placed horizontally. At one end was a door which was air-tight when closed, and the interior was fitted with bunks, lighted by electricity and heated by steam. A small window and speaking-tubes completed the arrangement. It was connected with the air-compressors and was fitted with a pressure gauge and the necessary taps. The sooner re-compression is practised after the symptoms appear the better as a rule are the results. If a long period has elapsed, even though the pain may be benefited, there is always in joint cases marked stiffness remaining, the condition then being not an acute one but simply the result of the bruising and stretching undergone by the tissues.

The amount of pressure needed for relief depends more on the severity of the case than on the original pressure which produced the symptoms. Persons attacked after coming out of 30 pounds per square inch pressure may feel perfectly relieved when the pressure in the medical lock amounts to 18 pounds, others may require to be re-compressed up to 25 pounds, although the pressure they came out of was only 23 or 24 pounds per square inch.

Decompression must be slow, and I think that it is of advantage not to reduce the pressure faster than at the rate of one pound in three minutes. In my experience re-compression never fails to stop the pain but there are exceptional cases where it returns shortly after exit. In some of these a second re-compression is effectual, in others it is quite useless, and I have given an example of each class in the appended illustrative cases. If the pain returns it invariably does so in the original situation, and the fact that pain should ever return after re-compression is probably owing to the creation by the first attack of a *locus minoris resistentiæ* which renders the passage of air into the tissues easier than escape by way of the respiratory system. In the cases in which the pain returned I had recourse to morphine given hypodermically. It must be used in fairly large doses, a quarter of a grain not being sufficient to control the pain in any of the three cases in which I used it.

Ergot is highly spoken of by Dr. Smith who considered it superior to morphine in relieving the pain. I never found it to be of any benefit except in one variety of case—that in which giddiness and headache are the symptoms. I have used it in doses of from one to two drachms of the fluid extract in cases of this kind and always with the greatest benefit.

In the acute cases it is my experience that liniments are practically useless and the same is true of bandaging.

In the cases of stiffness following the acute symptoms I have used the liniment containing aconite and belladonna recommended by Dr. Snell with the greatest benefit.

ILLUSTRATIVE CASES.

CASE 2.—The patient was a strong and healthy man, aged 26 years, who had been working in the Baker-street and Waterloo railway tunnel works for six days. He had finished an eight-hour "shift" at 6 A.M. on May 29th, and three hours later he had very severe pain in his left hip and thigh. He returned to the works at 8.15 P.M. when I saw him. The pain was then very severe, the left thigh being much swollen, and he could only walk with great difficulty. He was put into the medical lock and the pressure was raised to 18 pounds, at which point the pain had practically gone. The pressure was reduced to normal in 45 minutes and he came out feeling quite well but with much stiffness in the limb. There was still considerable swelling, so the thigh was firmly bandaged and he was given a liniment. When seen on the night of May 30th he stated that he felt quite well and that there was no return of the pain.

CASE 3.—The patient in this case was a man, aged 40 years, who had had previous experience in compressed air. He was a strong, healthy man. He came out of the pressure

at 6 A.M. on June 14th, after the regular eight-hour "shift," the pressure then being 28 pounds. At about 8.30 A.M. he was seized with pains in his left knee and in his right shoulder and elbow. He returned to the stage at 2.30 P.M. and I re-compressed him up to 25 pounds, the "locking-out" occupying 50 minutes. The pains before going into the lock were most intense, but on coming out the shoulder and elbow were perfectly well, the knee being slightly stiff. There was no return and he went on his "shift" at 10 P.M.

CASE 4.—The patient, a man aged 23 years, had worked in compressed air at Glasgow and had been at the Baker-street and Waterloo railway tunnel works for over a month. He had never been affected before. He came off his "shift" at 6 A.M. and immediately on leaving the lock he was seized with most acute pain in his left arm between the shoulder and elbow. He went back into the pressure and obtained instant relief, but on coming out again the pain returned as severely as before. I was sent for at 9.15 A.M when I found him in great pain. The left upper arm was much swollen and on palpation it gave a crepitant sensation to the examining fingers. He was put in the medical lock and re-compressed up to 22 pounds, coming out in 50 minutes. The pain returned but not so severely as at first. I then rubbed his arm with a liniment containing aconite and belladonna and applied a moderately tight bandage without the slightest relief. He was therefore again re-compressed up to 12 pounds, at which point the pain had gone. The "locking-out" took 30 minutes. There was no return of the pain after this second re-compression. The crepitant sensation imparted to the fingers in examining the arm in this case would lead one to suppose that it may possibly have been due to free air in the tissues. Dr. Snell had a similar case occurring in the thigh.

CASE 5.—The patient was a healthy man of small build, aged 26 years, who had had no previous experience in compressed air. He 'came off" at 6 A.M on Oct. 12th, after doing his first "shift," and within ten minutes he experienced most intense pain in both knees. He returned at once to the stage and I saw him a few minutes later, and he was then crying and groaning and apparently suffering very greatly. There was no swelling of the joints themselves, but there was a considerable amount of swelling in the muscles of the thighs. He was put into the medical lock and was re compressed up to 22 pounds, at which pressure the pain completely went. The pressure was reduced to normal in one and a half hours, and the pain at once returned. He was then given one and a half drachms of the fluid extract of ergot and was re-compressed to 22 pounds, two hours being occupied in "locking-out." The pain immediately returned and was so intense that I injected a quarter of a grain of sulphate of morphia hypodermically and had to repeat it in half an hour. This controlled the pain and the patient slept till 7 P.M., going home soon afterwards free from pain but hardly able to walk on account of the stiffness of his knee-joints.

CASE 6.—In this case a strong, healthy, spare man, aged 43 years, who had had no previous experience in compressed air, came out of the pressure at 6 P.M. on Oct. 10th after being in for four hours and about an hour later he was seized with most severe pain in the abdomen, the knees, the shoulder, and the elbows. The abdominal pains were most excrutiating and were accompanied by severe and intractable vomiting. He had two physicians at his own home, who on failing to relieve him advised him to come back to the works. He was brought back in a cab about 4.30 A.M. on Oct. 11th, and I saw him about 15 minutes later. He was in great agony, groaning and writhing with pain, and had to be lifted into the medical lock. During re-compression the abdominal pain increased and was so intense that he rolled on the floor of the lock, but when the gauge showed 24 pounds pressure the pain almost completely left him. The pressure was reduced to normal in 80 minutes, and when he came out of the lock he was quite free from abdominal pains and the only joint which was still somewhat painful was the left shoulder. In a short time he was able to proceed home. When seen on Oct. 12th the patient said that he felt quite well except for stiffness in the left shoulder. He was advised not to resume work in the air pressure.

CASE 7.—This patient came out of the pressure at 7 P.M. on August 20th, having been in just over three hours, the pressure being about 28 pounds. Almost at once he was seized with the most intense pain in "the small of the back on each side of the spine." It rendered him helpless and made him feel sick. I saw him at 7.15 P.M. and he was re-compressed, the pain having vanished by the time a pressure of 15 pounds was reached. Decompression occupied 65 minutes and he was perfectly well on leaving the lock. When seen on the morning of the next day he stated that he felt perfectly well. There was no return of the pain.

CASE 8.—The patient was a strong healthy man, aged 23 years. He had had previous experience in compressed air and had worked at the Baker-street and Waterloo railway tunnel works from the commencement. He came out of the pressure at 6 A.M. on Oct. 16th after working for eight hours and an hour later he felt very giddy and began to vomit very violently. There was no pain in the head or elsewhere. He was quite unable to stand. This condition continued for two days and on the third day he began to improve. On Oct. 22nd he returned to the works and I saw him for the first time. He was still somewhat giddy, so I gave him one and a half drachms of the fluid extract of ergot and in an hour he said that his head was quite clear. At no time was there any loss of power anywhere, the helplessness being due altogether to the giddiness. The vomiting was severe and intractable.

CASE 9.—The patient, who was a healthy spare man, aged 45 years, had been working in compressed air on and off for the last six years. He had never been affected by it in any way. He had been working at these works since the commencement of operations without having had any trouble. He came out of the pressure at 10 P.M. on Oct. 13th, and 15 minutes later he had very severe pain in the lower lumbar region on the right side of the spine and pain of a less marked character on the left side. He also had abdominal pains of moderate intensity. He returned at once to the stage, his lower limbs by this time being completely useless and sensation being much impaired as high up as the iliac crests. I was not sent for, some of his fellow-workmen taking it upon themselves to re-compress him, and at a pressure of 18 pounds all trouble had disappeared and he could use his lower limbs as well as ever. But they reduced the pressure to normal in less than ten minutes and, as was to be expected, the pains in his back and the paresis of the lower limbs returned just as he reached home. On Oct. 14th the lumbar pain had disappeared, but power in his legs was still absent and he had also lost power over his bladder and rectum, a catheter and enemas being necessary. He was brought to the stage on Oct. 15th and I saw him when I obtained the information which I have given above. He was then quite unable to move his right leg and could only just move the left leg. Sensation was impaired, but not completely gone, as high as the iliac crests in front and behind. I had little hope of re-compression or of ergot being of use, the interval having been so long, but I thought it well to try them. He was given one drachm of ergot and was re-compressed up to 25 pounds, the pressure being reduced to normal in an hour and three-quarters. There was no improvement at the time, but an hour later he was able to lift both legs and he said that he did not feel so helpless. Having given him instructions regarding himself he was taken home shortly afterwards. He improved daily and within a week was able to move about on his legs, but the use of a catheter was still necessary. I last saw him on Nov. 9th. He could then walk fairly well and sensation was much improved, but it was not yet normal and a catheter was still necessary. In this case I believe recovery will be complete, though it may be several months before the man is able to engage in his ordinary work. As a rule, in these cases the bladder is the last to recover, and the use of a catheter may be necessary for a considerable time after the limbs have completely recovered.

The pathology of these cases of paraplegia in which there is recovery can be reasonably explained by the pressure of air bubbles either in or outside the vessels upon the nervous centres in the cord. It is not probable that where recovery takes place there has been rupture of the vessels and consequent hæmorrhrge, though in those cases in which there is no recovery but in which the patients remain paraplegic it would appear that this is what happens. In the foregoing case the pressure on the cord was certainly not due to hæmorrhage because the man was at once completely cured by re-compression, and had the "locking-out" occupied an hour instead of less than ten minutes I am perfectly satisfied that there would have been no return of the paraplegia. When I saw the man nearly 48 hours had elapsed, and he

was probably then suffering not so much from the pressure as from the results of that pressure on the nervous structures of the cord, but from the fact that the second re-compression was of some benefit there was probably some free air even at that time.

INTERESTING SURGICAL CASES.

BY E. PAGET THURSTAN, M.D., B.A. CANTAB.

THE following is a report of 24 interesting surgical cases which occurred in the practice of Dr. E. J. A. Haynes and myself in Perth, Western Australia. The cases were operated upon by Dr. Haynes. We have thought that a brief account would be interesting to your European readers.

CASE 1. *Left ovarian cyst; ovariotomy.*—The patient was a woman, aged 21 years, who had been under treatment by a medical man for menorrhagia for some time. When Dr. Haynes was called in he found a large tumour which upon examination under chloroform proved to be a left ovarian cyst. The uterus was also enlarged to four inches. The peculiarity in this case was the severe menorrhagia—indeed, metrorrhagia—which pointed to uterine rather than to ovarian trouble. The patient was removed to a private hospital and Dr. Haynes performed ovariotomy in the usual way. The cyst was of the size of a man's head. The patient made an uninterrupted recovery notwithstanding that she was blanched by the severe hæmorrhage prior to coming under our care.

CASE 2. *Carcinoma of the liver.*—The patient was a man, aged 48 years. An exploratory incision was made, when a soft fluctuating tumour of about the size of an orange was found over the right lobe of the liver just below the point of the ninth rib. The liver was much enlarged, but was smooth and even. The patient fancied that the side had been swollen for 12 months before. Undoubtedly during the past three months it had been increasing in size and becoming painful. He had lived for years in South Australia, where hydatids are common, and he had also suffered from dysentery on the goldfields a few months before. There seemed to be no symptoms—e.g., wasting or jaundice—pointing to carcinoma. The diagnosis apparently lay between hydatids and liver abscess. A vertical incision was made three inches in length along the outer edge of the rectus and immediately on opening the peritoneum the case showed itself to be one of carcinoma of the liver. Subsequently there was no vomiting or abnormal temperature. After the third day the patient refused to keep his bed and on the fourth he left the hospital despite all our persuasions. Subsequently we learned that he recovered completely from the operation, but died a few months later in Fremantle from the malignant disease.

CASE 3. *Extra-uterine fœtation; laparotomy.*—In this case (of my partner, Dr. Haynes) extra-uterine fœtation was diagnosed, but the patient, a married woman, was so collapsed from constant vomiting, &c., that it was deemed advisable to postpone the operation, if possible, for a few days to endeavour to restore her strength. For a week she was kept in bed and was fed per rectum and she distinctly rallied. An incision four inches in length was made in the median line below the umbilicus. On opening the peritoneum a tumour of the size of a large orange was visible, but the uterus was bound down, the bowels and omentum were adherent in a mass over the tumour, and the relation of the several parts to one another was completely distorted. It being impossible to tie off the sac Kelly's suggestion was followed, and sharp-pointed scissors were thrust from the vagina into the sac and an indiarubber tube was inserted. The abdomen was then closed. For three days all went well the discharge coming freely through the vagina. Then symptoms of heart failure set in, and, despite hypodermic injections of strychnine and rectal injections of brandy, the patient rapidly collapsed and died in eight hours from the onset of the symptoms.

CASE 4. *Perinephritic abscess; abdominal section.*—The patient was a married woman, aged 42 years. She had had no family. She had been in the public hospital, but had been discharged on the ground that there was nothing the matter with her. On examination there was found to be pain on pressure over the region of the ascending colon. On very deep pressure there was a feeling of a tense fluctuating tumour in the direction of a vertical line from the point of the tenth rib to the level of the umbilicus. The patient had been feverish for some weeks before coming under our care. An incision was made from the tip of the tenth rib downwards and forwards for four inches, the peritoneum was opened, the liver was pulled up, and the flexure of the colon was drawn inwards. A tense tumour with a dense white covering could be seen which could be traced up under the liver and down to the level of the umbilicus. There was considerable matting together of adjacent parts, which made it doubtful whether the mass was a localised psoas abscess or a perinephritic abscess. The parietal peritoneum was with much difficulty stitched down to the sac and the tumour was then aspirated. About one and a half pints of offensive bluish pus were evacuated. An incision was then made, a large rubber tube was inserted, and the space around was packed with iodoform gauze. The gauze and tube were brought through the middle of the abdominal wound and the rest of the wound was stitched up. When the gauze covering was removed it was found that there was a free discharge through the tube. The wound was thereafter daily dressed with iodoform gauze. From the sixth day onwards the cavity was syringed out with weak iodine solution and the tube was removed and cleansed daily. The abdominal stitches were removed on the twelfth day, the whole wound being soundly healed except the portion in which was the tube. The patient left the hospital in three weeks and was then well except for the fact that the wound was discharging. This case was done without fee on our part and the cost of her stay in hospital was obtained by charitable subscriptions. This fund being exhausted she had no opportunity of returning or of undergoing further operation which was indicated. She was seen from time to time for a few weeks, but the wound never completely closed. The cause of this abscess was very obscure. There was no spinal mischief or anything to indicate psoas abscess. The probability seems to be that it was perinephritic.

CASE 5. *Extra-uterine fœtation on the left side; laparotomy.*—The patient was a married woman. The cyst burst during the operation and its thick grumous contents were baled out with a silver-plated ladle. The broad ligament had to be dissected out. Dr. Haynes used the purse-string stitch to close the peritoneum as recommended by Dr. O'Hara. The patient made an uninterrupted recovery and she left the hospital in a month, being then well.

CASE 6. *Extra-uterine fœtation on the left side; anti-laparotomy.*—The purse-string stitch was again used. The patient, a married woman, left the hospital in six weeks, after an uninterrupted recovery, and returned to the country. We subsequently heard that at the end of her journey a jollification was held in honour of her return. Coitus was probably indulged in. The medical man who attended her informed us that pelvic cellulitis supervened, to which she succumbed a few months later.

CASE 7. *Hydatids of the brain; trephining.*—The patient, a boy, aged 11 years, had been treated for years by various medical men for severe pains in the head, which were attributed to a fall on the head. For a year or two previously to his coming to Perth for advice he had had epileptiform convulsions. These convulsions were increasing in frequency and the mental condition was deterioriating rapidly. There was also motor paralysis on the right side for some days after each fit. Dr. Haynes diagnosed cerebral tumour of the left motor region. At the operation, as soon as the trephine circle (made over the region of the fissure of Rolando) was enlarged, the dura mater bulged into the wound. When it was incised nearly half a pint of hydatid fluid and daughter cysts escaped. Another sac was detected towards the right frontal eminence. A second trephine hole was cut in this spot. The bone was much thinned, being in one spot scarcely thicker than an eggshell. The dura mater bulged into the wound as before and four ounces of hydatid fluid and daughter cysts were removed. It was found that a probe would pass from one sac to the other, the pressure of the sac in the left hemisphere having apparently absorbed the falciform process of the dura mater. The sac was subdural, the surface of the dura mater being lined by the wall of the sac. The wall was thin and adherent and the cyst could not, therefore, be shelled out. Just prior to the operation the lad had had several fits followed by a semi-conscious condition from which he could be roused, but he invariably used one of three phrases: "Shut up," "Hurry up," and "Don't." For a few days after the operation the patient improved in intelligence and in motor power. Hydatids kept coming

away in numbers and it was evident that the brain was extensively permeated with cysts. He died within three months of the operation. It is possible that had the diagnosis been made years previously the lad might have recovered health as he rallied well from the operation. It is noticeable that he knew when the fits were coming on and used to run to his mother crying, "Oh, mammy, save me!" His head appeared large for a boy of his age.

CASE 8. *Double pyosalpynx; abdominal section.*—The patient was a married woman. Both tubes were greatly distended with pus and had to be removed, and the left tube was slightly ruptured during its removal. The abdomen was thoroughly flushed out with normal saline solution at a temperature of 110° F. The peritoneum was closed by purse-stitch. No drain was left in. This probably was the turning point in the operation, as the abdominal wound broke down without causing any symptoms of peritonitis. The external wound had been soiled by the ruptured tube and possibly had been rather bruised during the strong retraction of the incision which was necessary for removal of such large tubes. A very considerable quantity of pus was discharged daily from the abdominal wound. Almost every lotion recommended in the text-books was tried without success in the endeavour to check this formation of pus, until Kelly's advice was followed and a hydrogen peroxide 5 per cent. solution and a 0·5 per cent. formalin solution were used, when rapid improvement took place. A collection of pus formed in Douglas's pouch, whether from the remains of infection in the stump of the tubes or from cellulitis it was hard to say. This was incised per vaginam and drained and was ultimately completely closed. The abdominal wound healed at the end of three weeks. The patient made a perfect recovery and has since been actively managing a business without needing to lie up for a day. The complication of the suppuration burrowing under the recti and spreading between the planes of the abdominal muscles is distinctly one to be dreaded, and the value of syringing with peroxide and formalin is well worth remembering.

CASE 9. *Tuberculous kidney; removal of the left kidney.*—Medical treatment having failed to give relief to the patient (a man) it was decided to remove the left kidney, which was subsequently found to be very large, weighing over three ounces, and to contain abscesses. At the operation the incision was made anteriorly, as recommended by Mr. Harrison Cripps. Though easier of performance than with the posterior incision there is the drawback that the peritoneal cavity is opened. When there is purulent infection in the kidney, as in this case, the peritoneum can hardly fail to become affected, and this occurred in the present instance. The patient ultimately succumbed to peritonitis, and Dr. Haynes attributes his want of success to his doing the operation intra-peritoneally instead of extra-peritoneally.

CASE 10. *Hydatids of the abdomen; abdominal section.*—In this case, that of a married woman, there was a well-defined tumour running across the right epigastrium, and apparently across the liver, as the area of liver dulness was much increased downwards. Fluctuation could be made out. The patient was a young woman, only 23 years of age. The diagnosis was hydatids. An incision three inches long was made over the right rectus. After the fibres of the muscle had been separated it was found that the cavity of the peritoneum had become shut off and there was nothing below the muscle but the adventitious sac of the tumour. On aspiration a gallon of clean hydatid fluid was drawn off. After incision the sac was kept open by fixation forceps and the mother cyst, though very thin-walled, was safely removed without rupture. It proved to be an acephalous hydatid cyst. Further exploration showed that the cyst had pushed the liver down some three inches and quite a cavity existed between the wall of the cyst and the diaphragm. The cyst was sutured with catgut and the abdominal wall was closed by interrupted silkworm sutures. The patient made an uninterrupted recovery and left the hospital three weeks after the operation.

CASE 11. *Uterine fibroids; double oöphorectomy.*—On opening the abdomen of this patient, a married woman, a very formidable array of complications was made manifest. There were three fibroids attached to the fundus; the posterior portion of the uterus was adherent to the pelvis; one of the fibroids had dissected up the right broad ligament, and both broad ligaments were twisted round the womb and flattened out. Apparently the only choice lay between hysterectomy and removal of the ovaries. The patient was in a very low condition from previous hæmorrhages and the larger operation seemed contra-indicated, so both ovaries were removed. Dr. Haynes found this somewhat difficult owing to the twisting of the ligaments. The patient made an uninterrupted recovery. Her symptoms have abated and at the time of writing she is perfectly well.

CASE 12. *Appendicitis; abdominal section.*—The patient was a married woman, aged 40 years. When I first saw her she had great pain over McBurney's point, with tenderness, rigors, and a temperature indicating suppuration. An incision three and a half inches long was made over the site of prominence in the direction of the fibres of the external oblique, as recommended by Greig Smith. The muscular tissues of this and the internal oblique were separated rather than cut and a free incision was made through the transversalis. Below this all the parts were so matted together that it was difficult to recognise the structures. At this stage the peritoneal cavity was inadvertently opened, but was easily stitched up again with a continuous catgut suture. The dissection was then continued down to the cæcum, the abscess was discovered, and fully an ounce of pus was evacuated. The appendix could be made out in the abscess cavity, but Dr. Haynes decided not to attempt its removal. An iodoform gauze drain was inserted, the several muscular layers were sutured with No. 3 silk and the skin with silkworm gut, two deep silkworm gut sutures being also inserted on each side of the drain. The fever, vomiting, and bowel obstruction were at once relieved. On the day after the operation the gauze was removed and a rubber tube was inserted. It was some time before the sinus finally closed, but the patient made an excellent recovery and remains in splendid health.

CASE 13. *Strangulation by Meckel's diverticulum; abdominal section.*—The patient (a man) had been treated on the goldfields for appendicitis, which his symptoms closely resembled, and it is doubtful whether so unusual a course of obstruction would have been diagnosed anywhere. A tumour could be felt on a level with the umbilicus and to the right of it. There were symptoms of obstruction, and the trouble having lasted some time an exploratory incision, with the option of performing any further operation indicated at the time, seemed to be the right course. A median incision was made and ultimately extended to four inches in length from below the umbilicus towards the symphysis pubis. A mass of the size of a man's fist, matted over with omentum, was drawn out of the wound. The mass consisted of the small bowel covered by omentum strongly adherent to the ascending colon. The ragged uneven omentum was dissected off the mass and ligatured with fine silk and removed. As the separation of the several parts of the mass continued it was found that two coils of the ileum, doubled on themselves, were adherent to the colon. With extreme care Dr. Haynes dissected these apart, having to tie several bleeding points, which was done with fine silk. Then for the first time the cause of all the trouble was discovered—Meckel's diverticulum had remained patent. It was as thick as a little finger, about two and a half inches long; it was club-shaped, and it sprang from the ileum six inches from its termination in the colon. It was firmly adherent to the two coils of ileum, from which it was dissected with extreme difficulty. There was sharp bleeding from the separated walls of the small bowel, which was stopped by passing a straw needle armed with fine silk beneath the bleeding point. The diverticulum was clamped close to the ileum, was cut off, and was secured by over-stitching, and was then inverted into the lumen of the gut, the peritoneal coats of which were brought together with fine silk, just as in removal of the appendix. The patient made a complete recovery.

CASE 14. *Ovarian cyst; ovariotomy.*—The patient, a married woman, had an ovarian tumour which was removed in the usual way. There was nothing in the operation deserving record. During the three days succeeding the operation everything progressed most favourably and she seemed to be out of danger. On the third night she was suddenly seized with acute pain in the chest; she gasped for breath, threw her hands about wildly, and begged the nurse to open the window as she was "smothering." She died before Dr. Haynes could get to her. No post-mortem examination was obtained, but there was little doubt that the cause of death was pulmonary embolism.

CASE 15. *Stone in the kidney; nephrotomy of the right side.*—The patient was a male. The case presented all the symptoms of stone in the kidney. After consultation an

operation was determined on. Dr. Haynes made the usual lumbar incision and found the kidney quite easily. It was much enlarged and was bound down by old peri-nephritic adhesions. Great difficulty was experienced in separating the kidney and in bringing it out of the wound. After several exploratory punctures a soft friable mass was located towards the lower edge. This was incised and was thoroughly washed out. The kidney was returned and the external wound brought together with deep silkworm sutures. A drainage tube was left in for four days, being withdrawn gradually. The patient made a very good recovery and left the hospital in splendid health.

CASE 16. *Hystero-epilepsy; double oöphorectomy.*—The patient, a married woman, had had two children, the last born eight years previously. She had had constant epileptiform seizures. During the periods these were exceptionally severe and frequent and they left her droway and helpless. Almost every medicine in the British Pharmacopœia had been tried without avail and insanity was feared. Bimanual examination disclosed both ovaries to be enlarged and painful, and pressure was sufficient to provoke a seizure. It was resolved to remove both ovaries and this was done. The left ovary proved to be markedly cystic and the right ovary was also cystic but in a less degree. The patient made a good recovery with immediate improvement. She has since continued to improve and the fits have ceased.

CASE 17. *Large uterine fibroid; double oöphorectomy.*—This patient, a married woman, was practically slowly bleeding to death when she came to us. On examination an enormous fibroid was made out. Abdominal section showed that the tumour was sessile and attached to the fundus uteri. Removal of the tumour was impossible, and both ovaries were therefore removed. The patient made an uninterrupted recovery, and when she was last heard of the hæmorrhage had ceased, the tumour had shrunk to half its former dimensions, and she was able to attend to her domestic duties instead of being a confirmed invalid.

CASE 18. *Advanced cancer of the cervix uteri; removal impossible; blood-supply tied off.*—This patient, a married woman, was in a deplorable condition, being almost at death's door from exhaustion and hæmorrhage. She had travelled for 600 miles by land and sea from a distant goldfield to Perth for medical treatment. She entered the Public Hospital, but she was told that her case was too far advanced for operative treatment. With this view Dr. Haynes coincided, so far as removal was concerned, for the disease had spread from the cervix and had implicated the vault of the vagina. The uterus generally was much enlarged. The patient was 50 years of age and the symptoms had first shown themselves six months previously. About this time Dr. Haynes noticed that the medical journals were giving accounts of Dr. Jannesco's treatment of inoperable cases by cutting off the blood-supply, and he determined to follow Dr. Jannesco's instructions in the case. It was represented to the family that such an operation would not cure the disease, but that it would, if successful, considerably prolong life and would greatly mitigate the present urgency of the symptoms. Consent to the operation was eagerly given. A median incision was made four inches in length below the umbilicus. The bowels were held back and a good view of both broad ligaments was obtained. The ovarian arteries on both sides were tied off with No. 3 silk twist, as were both round ligaments with their arteries. Then a long right-angled needle was passed, first on one side and then on the other, close to the uterus, low down near the insertion into the vagina, and the arteries of the uterus were there tied. Despite the low condition of the patient uninterrupted recovery took place from the laparotomy. During her stay in hospital the ulcerated surface was curetted and treated every third day with an application of iodised phenol and glycerine tampons, and the vagina was daily syringed with permanganate solution. By the time she left the hæmorrhage and foul discharge had ceased and her health was greatly improved. She was able to travel back by rail and to resume her business and to continue it for six months until she was able to dispose of the goodwill. The disease, of course, has spread, but it is now nearly 12 months since the operation and the patient is still able to get about. Dr. Haynes considers this operation as a striking proof of the wisdom of Dr. Jannesco's mode of procedure, as under no other known treatment would the poor woman have been alive to-day.

CASE 19. *Cystic ovary; left oöphorectomy.*—The prominent symptoms in this case, in which the patient was a married woman, were extreme irritability of the bladder and pain in the left side and the left leg which became intolerable for a week during each menstrual period and which was accompanied by constant vomiting. Laparotomy was performed. The left ovary, which was found to be as big as a mandarin orange, was removed. Recovery was uninterrupted and complete relief from all the symptoms was secured.

CASE 20. *Internal strangulation in the ileo-cæcal fossa; laparotomy.*—The patient, a boy, three and a half years of age, had been under treatment at the Public Hospital for nine months for worms. When brought to Dr. Haynes he had a tumour of the size and shape of an ounce medicine bottle about an inch above McBurney's point. The chief symptoms were pains in the abdomen accompanied by vomiting and terminating in convulsive seizures. Operation was determined upon, but the child was in such a low condition that it was deemed advisable to feed him per rectum for three days first. An incision two inches in length was made in the median line. Nothing was found wrong with the cæcum or with the appendix. A loop of ileum four inches in length had passed through an aperture into the ileo-cæcal fossa and passed upwards under the colon towards the left kidney. Very great difficulty was experienced in withdrawing the bowel, which was much congested. In the coats of the ileum at the bend was a lump of about half the size of a walnut, probably inflammatory, thickest at the spot where the bowel was first nipped. An uninterrupted recovery and a perfect cure of the symptoms ensued. According to Maylard and Treves this is a very rare form of strangulation and possibly is the first recorded in the living subject. There was no mistake about the case, however, as Dr. Haynes took great pains to verify the relation of the parts. Three lengths of ileum appeared in view at first. It was found that the lowest one was the part normally joining the cæcum, the two upper coils being the strangulated parts. The ileo-cæcal fold covering the fossa was well defined, and on the finger being inserted subsequently the direction of the sac under the colon could distinctly be made out.

CASE 21. *Adhesions subsequently to former ovariotomy; laparotomy and separation of the adhesions.*—This patient, a married woman, aged 32 years, had had her right ovary removed in Melbourne 10 years previously. The recovery had been very slow and a sinus remained for 18 months. She had ever since been a martyr to pain and the greatest difficulty had always been experienced in obtaining relief of the bowels; indeed, at times the trouble amounted to obstruction. On opening the abdomen it was difficult to define the peritoneal cavity at all. The small intestine was adherent to the old abdominal incision, to the uterus (which was retroverted and firmly bound down), and also to the large bowel. The omentum could not be defined. How a human being could have lived with her intestines in such a tangle was a mystery. Great difficulty was experienced in separating the adhesions and tying the bleeding points. The left ovary proved healthy, and it was therefore not interfered with. The uterus was freed and replaced in position. Recovery was uninterrupted. Two months later, at a subsequent operation, Dr. Haynes removed several large piles with the benzine cautery. Since then there has been no trouble with the bowels and the patient enjoys as good health as she did prior to her marriage twelve years before.

CASE 22. *Traumatic ovaritis on the left side; oöphorectomy.*—This patient, a married woman, aged 38 years, had received a kick from a horse nine months before. She was drifting into permanent invalidism through abdominal pain and irritability of the bladder, the symptoms being very intense at the menstrual epochs. The ovary proved to be large and cystic. A cicatrix ran transversely across the outer third of it, the tube was thickened, and the broad ligament showed signs of old inflammatory trouble. The left ovarian vein was enlarged and varicose, this condition being probably caused by the kick. The patient made an uneventful recovery.

CASE 23. *Hydatid of the liver; abdominal section.*—This case, in which the patient was a married woman, has been already reported.[1] Dr. Haynes had previously removed five large hydatids from the abdomen. In the former account of the case it was mentioned that the patient was three months pregnant at the time of operation. Two months later she returned, complaining of trouble in the vagina. Dr. Haynes then removed per vaginam a cyst containing six ounces of hydatid fluid and daughter cysts. The pregnancy continued

[1] THE LANCET, April 29th, 1899, p. 1141.

to seven and a half months, when labour set in and she was delivered of a living child, but the infant died in a few days. On the present occasion the patient presented a large tumour reaching close up to the ribs above and extending from the right nipple-line to two inches beyond the median line. A vertical incision three and a half inches long was made over the prominent part of the tumour. The sac wall was stitched to the peritoneum with chromic gut. The tumour was aspirated and about two quarts of fluid were drawn off. The flow through the needle ended very suddenly, but as no more fluid could be persuaded to pass Dr. Haynes incised the tumour and the wound was kept open by Spencer Wells forceps. The theory was that the mother cyst had slipped off the point of the needle at the moment that the flow ceased, and the correctness of this was proved eight days after the operation when in the course of the usual syringing the mother cyst presented in the wound and was successfully removed. The adventitious sac was stitched to the abdominal incision by silk twist, the needle taking up the peritoneum and passing through the whole thickness of the abdominal wall. The remainder of the incision was closed with silkworm gut. Following Mr. Treves's advice Dr. Haynes inserted a very large rubber drain and dressed the wound with iodoform gauze and wood-wool. Iodine solution was used for the daily syringing. The large tube was left in for 10 days, being gradually shortened, then a smaller tube was inserted, and finally a smaller one still until the wound closed. This cyst was acephalous and had no daughter cysts, and this was the case also with two others, the remaining four having subsidiary cysts. The paralysis of the left arm from which the patient suffered after the first operation had entirely disappeared.

CASE 24. *Traumatic varicose aneurysm of the thigh; ligature of the vein and the artery.*—The patient, a young man, aged 25 years, was cutting a side of bacon with a long-pointed butcher's knife when it slipped and entered his thigh an inch and a half below Poupart's ligament and half an inch to the outer side of the course of the femoral artery. He was under treatment on the goldfields and five months had elapsed from the receipt of the injury, three of which he spent in bed, before he consulted Dr. Haynes. A tumour was visible just below the fold of the groin three and a half inches in its long diameter, with its summit elevated half an inch. There were visible pulsation and a distinct thrill in the tumour. A loud, booming bruit was heard over the elevated area, downwards for two inches along the course of the femoral and profunda arteries and upwards along the external iliac artery. Pressure on this artery caused cessation of thrill and bruit below. Signorini's tourniquet was applied over a Barnes's uterine-dilating bag filled with water and kept on for 18 hours. Thrill, bruit, and pulsation all disappeared during treatment but re-appeared immediately it was left off. The risks in ligaturing the iliac and common femorals being so great Dr. Haynes preferred to cut down over the seat of injury with a view to finding and tying the injured vessels and turning out the clots if necessary. A three-inch incision was made over the course of the femoral artery, starting just below Poupart's ligament. As soon as the sheath of that vessel was defined the tumour was found to run along its outer side and apparently to pass underneath it lower down. Accordingly the incision was prolonged and the dissection carried further down. The sac of the aneurysm was defined close to the outer side of the profunda. The external circumflex seemed to be imbedded in the infiltrated tissue of the sac, but the integrity of the coats of the profunda and superficial femoral was clear. The thrill could be felt under and to the outer side of these vessels. The tissues were much matted together and the branches of the anterior crural nerve were defined with difficulty. The external circumflex was ligatured (after the sartorius had been dissected free and drawn outwards) about an inch from the profunda. The thrill and pulsation at once ceased. Just above the artery was a dilated vein of about the size of a No. 6 catheter, which seemed to come from the aneurysmal sac. In endeavouring to ligature this the sac, being very thin, burst at that part. For the moment the hæmorrhage was rather alarming, but it was stopped by sponge-pressure and the vein was successfully tied. This vein was apparently one of the venæ comites, though separated by half an inch from the artery. The incision was closed by silkworm gut, a few strands of silk being inserted as a drain. The dressing was iodoform gauze and sublimate wool. The whole limb was bandaged and an outside splint was applied from the axilla to the ankle. The drain was removed at the end of a week. The patient made an excellent recovery. He was ordered to wear an elastic stocking as a support.

Perth, West Australia.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

REMARKS ON A NEW INTESTINAL ASTRINGENT.

BY J. PORTER PARKINSON, M.D., M.R.C.P. LOND.,

PHYSICIAN TO THE LONDON TEMPERANCE HOSPITAL, AND PHYSICIAN TO OUT-PATIENTS AT THE NORTH-EASTERN HOSPITAL FOR CHILDREN.

IT is well known that tannin, though an energetic astringent when used locally, nevertheless exercises its effects chiefly upon the upper parts of the gastro-intestinal tract, as the mouth and stomach, coagulating the albuminous fluids there and also precipitating the pepsin. On this account it interferes with digestion. It is also rapidly absorbed from these mucous surfaces as gallic acid and then is useless as an astringent; hence, except when it is given in huge doses, it does not reach the lower part of the intestine and so can exert no astringent action there.

Many preparations have been placed upon the market, such as tannigen, tannalbin, and tannoform, all of which are of more value than tannin as intestinal astringents, but all are to a large extent split up in the stomach. In 1899 Dr. Sztankay prepared a derivative of tannin in which it is so combined with albumin and keratin that a minimum of disintegration occurs in the stomach and 72 per cent. of the amount given passes into the intestines, which is nearly twice the amount of any other astringent unchanged in the stomach. To this compound he gave the name of "Honthin." This substance, as now prepared by Messrs. Heil and Co. of Troppau, is a brownish powder, insoluble in water but partly soluble in saline solutions, and is without taste or smell. Its action is a precipitation of albumin and mucus such as are found upon catarrhally inflamed mucous membranes, thus protecting these membranes from further irritation and preventing the penetration of organisms or toxins. It also contracts the superficial vessels and diminishes the secretion of fluid. It has been used by Dr. Kölbl of Vienna with striking results in cases of acute, subacute, and chronic diarrhœa both in children and adults. The average dose for an adult is 20 grains three times a day. It is best given as a powder placed upon the tongue, followed by a drink of milk or water, and as it is tasteless children take it well; it is also absolutely non-toxic and so there is no danger of giving an overdose.

My experience of this drug extends over the past six months, during which time I have repeatedly used it in hospital and private cases with good results. I have used it most frequently in the diarrhœa of children. In these the beneficial effect is seen in the course of a day or two in diminution of the number and increase of solidity of the stools with lessening of the amount of mucus they contain. I have generally commenced treatment by the administration of a single dose of castor oil and have then prescribed doses of between five and ten grains of honthin three times a day for children between the ages of two years and ten years. It is most generally useful in cases of diarrhœa which continue in spite of careful dieting and the administration of the usual remedies; it has but little effect in reducing the offensiveness of such motions though it diminishes their frequency, and it does not appear to be so generally useful in the choleraic form of diarrhœa in which very large quantities of fluid are discharged. In cases of chronic colitis in adults I have used it with marked benefit and it appears to be worthy of trial in cases of acute or chronic dysentery.

I have thought it worth while giving a short account of this drug as it appears to be little known in England, for there was considerable difficulty and delay in procuring it and many of the best known pharmaceutical chemists appeared not even to have heard its name.

Wimpole-street, W.

A CASE OF CHRONIC DILATATION OF THE STOMACH ENDING IN DEATH FROM GENERAL TETANIC CONVULSIONS.

BY D. D'ESTERRE, M.D., B.S. DURH., M.R.C.S. ENG., L.R.C.P. LOND.

THE patient was a man, aged 30 years, who for three years past had suffered from symptoms of dyspepsia occasionally accompanied with vomiting. At one time he was a heavy drinker and a large eater, but he became very careful and abstemious in the matter of food and drink, which even in small quantities caused him pain and uneasiness. There was no palpable tumour within the abdomen. His most troublesome complaint was the vomiting of enormous quantities of coffee-coloured fluid about twice a week. His wife stated that the quantity was sometimes nearly a gallon. He also suffered much from eructation of gas. The physical signs of gastrectasia were present. He was instructed in the use of the stomach-tube, in which he became quite expert, and often expressed himself as feeling much better after its use. However, after a slight improvement he was suddenly attacked with extremely painful convulsions of a tetanic character affecting chiefly the flexor muscles of the arms and hands and in a lesser degree those of the abdomen, legs, head, and neck. Opisthotonos was at one time marked and he also showed the risus sardonicus. This attack was overcome with large doses of chloral hydrate, bromide of potassium, and tincture of opium, and subsequently he was given sulphate of soda and magnesium as well as enemata to counteract the constipation. He improved sufficiently to go about again and resume his work, but he succumbed to a similar seizure a few months later.

Regarding the pathology of these convulsions, which are distinctly rare, it may be summed up as uncertain, but resting at present on three theories: (1) Kussmaul's idea of the sudden decrease of water in the tissues of a subject already very dry, as occurs in cases of cholera; (2) Gerhardt's suggestion that the tetany is due to the absorption of products of decomposition; and (3) Ewald's suggestion that they are a manifestation of reflex action analogous to convulsions in children with worms. If the first theory be correct it would seem advisable to administer large rectal injections or employ transfusion, but similar attacks follow other diseases which cannot be traced to such a cause as dehydration of the tissues. If the second theory be correct tetany would not be expected to occur in cases where the stomach-tube was regularly and thoroughly used as in the case above narrated. The third-mentioned theory of the reflex nature of tetany in these instances can hardly be disproved and gains strength from the well-known cases of increased nervous irritability, mechanical and electrical, which accompanies auto-intoxication.

Gipsy-hill, S.E.

THE PYREXIA OF SYPHILIS.

BY P. W. BASSETT-SMITH,
STAFF-SURGEON, R.N.

AT the meeting of the Clinical Society of London held on Nov. 23rd[1] Mr. Campbell Williams brought forward a case of fever which he called "intermittent essential fever" of syphilis, in contra-distinction to the fever frequently found in the early secondary period, and it was then pointed out that this condition was far from uncommon, though there is very little reference to the peculiar characters in the usual text-books. In the article by Mr. Jonathan Hutchinson on the disease, as found in Allbutt's "System of Medicine," it is not mentioned. The diagnosis of these cases is often obscure, as the fever is frequently unattended by any marked specific characters, the patient being quite free from rash, gummata, or other usual manifestations, and the intermittency of the fever often leads to the diagnosis of malaria or tubercle.

In a case lately under treatment in the Royal Naval Hospital, Haslar, the course of the disease was interesting. A man, aged 25 years, had been invalided from the West Indies for fever of an irregular type; he was admitted into Haslar Hospital in January, 1900, and was under treatment for post-influenzal pyrexia, being then very anæmic. He returned to duty for six months, but he was again admitted in August for malaria. Examination of his blood showed no evidence of this, but it was noticed that there was a relatively great increase of lymphocytes, as distinct from the polymorpho-nuclear leucocytes (neutrophiles). On a blood count being made there was seen to be a reduction of the red cells (2,800,000) without nucleated forms, but only a slight total increase of white cells (13,600). This, with the marked anæmia, tendency to epistaxis, and slight enlargement of the glands in the groin, led to the diagnosis of early lymphatic leukæmia. His temperature was remarkable, varying as much as 7° F. at times between night and morning, but without rigors and with scarcely any constitutional symptoms. The patient was treated with arsenic, iron, digitalis, &c., for ten weeks, and for a short time with mercury with chalk. Regular examinations of the blood showed the same characters throughout with an extraordinary abundance of blood-plates, this being beautifully demonstrated by using Louis Jenner's stain. As there was an old history of syphilis he was later put on iodide of potassium and bark, with the result that in three days the temperature fell to normal and never again rose.

This question of treatment is interesting as agreeing with the experience of Dr. T. D. Savill that the iodides gave more favourable results than mercury, for though early in the course of the disease this patient was taking the latter as an anti-specific remedy the temperature did not fall to normal. Cabot[2] states that in certain stages of syphilis there are a decrease in the number of red cells and an increase of lymphocytes as was found in this man, but he does not mention the increase in the blood-plates. The peculiar intermittent fever with such intense oscillations is noticed by Dr. Barney Yeo, and a similar case is reported by Dr. Sidney Phillips,[3] in which the pyrexia lasted for months, resembling tertian ague, but yielded at once to iodide of potassium. It is probable that many cases of indefinite fever so common in the services are of this character.

Haslar.

[1] THE LANCET, Dec. 1st, 1900, p. 1577.

[2] Clinical Examination of the Blood, pp. 268, 271.

[3] Osler's Medicine, p. 240.

HERNIA STRANGULATED IN THE INGUINAL CANAL; RADICAL CURE.

BY J. B. PIKE, M.R.C.S. ENG., L.R.C.P. EDIN.

THE patient, who was a foreman railway porter, aged 35 years, for about a year had noticed a lump in his right groin. On Oct. 16th, 1900, this became larger after exertion, and vomiting and pain very shortly supervened. The hernia was partially reduced the same evening, but some slight fulness was still left in the inguinal region. On seeing the patient the next morning I found vomiting still persisting and a distinct fulness remaining, although the external ring was quite free. On inserting the finger deeply through the ring a small tumour was felt, occupying the canal. The patient was at once removed to the Loughborough Hospital and herniotomy was performed as soon as possible. On opening the sac some very congested bowel was found, which was retained by a tight constriction at the neck of the sac. The stricture having been divided and the intestine returned the sac was found to be much thickened and adherent to the spermatic cord, from which it was only separated with considerable difficulty. This having been done the neck of the sac was transfixed and ligatured with catgut and the sac cut off. A deep silk suture was then passed through the neck of the sac and the edges of the wound, the remainder being brought together with silkworm gut. The after progress of the case was uneventful. There is now (six weeks after the operation) a very slight tendency to bulging in the inguinal region on coughing. As a precaution a light truss is being worn. Primary union was made more probable by the incision lying well above the scrotal tissue.

Loughborough.

A CASE OF POISONING WITH A SMALL DOSE OF CHLORALOSE.

BY EDWARD H. DOUTY, M.D. CANTAB.

Professor Bradbury's remarks about chloralose in his Croonian Lectures for 1899 lead me to relate the following case.

I was called at about 12 midnight to a young woman who

was supposed to be in a fit. She had gone to bed at 11 P.M. She had been in the habit of indulging in chloral and also in cocaine at home, but she had taken very little while at Davos. A physician in London had given her cachets of chloralose, eight grains in each, to take for sleeplessness. She took one for the first time that night. I found her in great distress, unable to move her legs or her arms, with a feeling of numbness in them, the numbness being more marked on the right side. She could not move. Her mind was clear but her speech was slow. Her pulse was good. She recovered in five or six hours. A week afterwards she took another cachet and I was called at about 1 A.M. by her friend who slept in her room because she would not answer when spoken to and again was thought to be in a fit. She was in a cramped-up posture of emprosthotonos, her thighs were tightly flexed on her abdomen, and her chin was forced down on her chest. Respiration was almost inappreciable and very slow and she was cyanosed. Her pulse was 80 and fairly good. Her extremities were not cold. She was quite unconscious and I could not rouse her. I had difficulty in overcoming the contraction of her limbs and neck, but having done so I performed artificial respiration for half an hour, whilst others applied very hot water to her chest and head, and as soon as she could swallow we forced down some brandy, and her breathing improved, but was very slow. In an hour it was possible to get a grunt in reply to questions. She remained in that state for six hours and was torpid all the next day, then seemed quite herself again. The small extent to which the heart seemed affected on each occasion quite bore out Professor Bradbury's observations in his experiments.

Davos Platz.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

A CASE OF PERFORATED GASTRIC ULCER.

(Under the care of Mr. T. H. KELLOCK.)

IN the lectures on the Surgery of the Stomach delivered in March last by Professor Mayo Robson there are given statistics of 429 cases of perforated gastric ulcer treated by operation. Of these 193 patients recovered and 236 died.[1] This is a mortality of 55 per cent. The most important element in prognosis in cases of perforation treated by laparotomy is the length of time which has elapsed before the operation is performed. In the lectures already quoted it is shown that of cases under 12 hours the death-rate was 28 per cent.; from 12 to 24 hours it was 63 per cent.; and from 24 to 36 hours it was 87 per cent. For the notes of the case we are indebted to Mr. R. Ainsworth, house surgeon, and Mr. C. W. Rowntree, dresser.

A single woman, 22 years of age, a domestic servant, was admitted into the Middlesex Hospital at 1 A.M. on Sept. 20th, 1900, suffering from vomiting and pain in the back, shoulders, and abdomen. She stated that for five years she had suffered severe pain after taking food; the pain came on immediately after a meal and was most acute in the epigastrium. She had occasionally vomited about a quarter of an hour after a meal and the pain was then much relieved; on one or two occasions there had been a little blood in the vomited material. She had also suffered from amenorrhœa and dysmenorrhœa and had been under treatment on and off for the whole period of five years. At 9 P.M. on the previous evening she had a supper of hashed meat and half an hour later was seized with sudden severe pain in the epigastric region which was worse than she had ever experienced. She was given some brandy which she at once vomited, and shortly afterwards she vomited again, but there was no blood in the vomited matter on either occasion. As the pain became worse and as she was obviously very ill Dr. Percy Edmunds was summoned. He saw her three-quarters of an hour after the onset of acute symptoms and found her suffering then from pain almost entirely confined to the neighbourhood of the scapulæ and clavicles, and he also noted that her face was markedly of the "abdominal" type He diagnosed a perforated gastric ulcer, administered two grains of opium, and advised her immediate removal to the hospital.

On admission the patient appeared to be seriously ill. Her face was very pale and drawn and she complained of pain in the back between the shoulders and in the epigastric region, but it did not seem to be very severe; there was no retching or hiccough. The pupils were not contracted. The pulse was 120 per minute, of very poor volume, and occasionally dicrotic, the respirations were increased in frequency, short and grunting in character, and the temperature was 100° F. The abdomen was somewhat distended and moved very little with respiration; there was considerable muscular rigidity on palpation, especially in the epigastrium and below the right costal margin, but very little tenderness. There was no dulness in the flanks and no fluid thrill was to be obtained; a tympanitic stomach note could be obtained on percussion over the left lower ribs nearly to the level of the umbilicus; the liver dulness was present down to the right costal margin.

Mr. Kellock saw the patient at 2 A.M. and decided on immediate operation. The abdomen was opened by an incision in the middle line reaching from the xiphisternum to the umbilicus. On opening the peritoneum a fair quantity of thin turbid whitish fluid escaped. On drawing up the left lobe of the liver the stomach was seen to be somewhat distended, its anterior surface was covered with lymph, and the vessels were intensely congested. The lesser curvature was fixed by adhesions so that it could not be drawn up. On examination of the upper border a perforation of about the size of a sixpence was found near the cardiac end, through which gas and fluid came when the stomach was manipulated. The edges of the perforation and the wall of the stomach in its neighbourhood were very hard and indurated. Owing to the density of the adhesions the closing of the opening had to be done without bringing it up to the surface; the edges were first brought together by fine silk interrupted sutures and a row of Lembert's sutures was then inserted, turning in the peritoneal and muscular coats of the stomach all round the perforation. The peritoneal cavity was cleansed by means of sponges, very little extravasation of the contents of the stomach being found except at the upper part in the immediate neighbourhood of the stomach and liver. A rubber drainage-tube was inserted leading down almost to the site of the perforation, the peritoneum was closed round it by a continuous silk suture, the skin and muscles were united by silkworm gut and horsehair sutures, and a dressing of cyanide gauze and sal-alembroth wool was applied.

The patient bore the operation very well; on its completion she was given a quarter of a grain of morphia hypodermically, after which she was very quiet for some hours and free from pain; she vomited slightly once, bringing up some greenish fluid. Eight hours after the operation the pulse had fallen to 96 per minute, the facial expression was improved, and the abdomen moved with respiration slightly more freely and was free from tenderness. A little blood-stained discharge came from the drainage-tube at first; on the second day a drain of iodoform gauze was substituted for the tube, and this was again changed on the third day for a strip of oiled silk which was continued for three days and then omitted as the discharge had practically ceased. For four days the patient was fed entirely by the rectum, plain water being given at first and subsequently peptonised milk and beef-tea. This was discontinued gradually and feeding by the mouth with milk-and-water was commenced. She suffered very little pain in the abdomen after the second day when it was relieved by a hypodermic injection of morphia. By Oct. 2nd she was having all her nourishment by the mouth; she was then given palatinoids of carbonate of iron and a little liquid extract of cascara sagrada. The stitches were removed on the twelfth day, the wound being soundly healed except where the drainage-tube had been. The temperature rose to 101° on the first day but subsequently was practically normal. The patient was sent to a convalescent home on Oct. 18th, the wound being then quite healed, her anæmia had much improved and she was taking a fair amount of solid food without pain or discomfort.

Remarks by Mr. KELLOCK.—Owing to the early diagnosis

[1] THE LANCET, March 17th, 1900, p. 748.

that had been made in this case we were fortunately able to operate within five hours of the onset of the acute symptoms; the opium which had been given previously to the patient's admission to the hospital had, by relieving the pain, masked one of the important symptoms, but it probably helped very considerably in the successful issue by lessening the movements of the stomach and intestines and so prevented any great extravasation of the contents of the stomach. The history of the case, the rapid feeble pulse, and the rigid, almost motionless abdominal wall, combined with the marked abdominal facial expression, seemed to be sufficient evidence of what had occurred. The strong adhesions about the lesser curvature of the stomach rendered the suturing of the perforation difficult, as it had to be performed at some depth owing to the impossibility of bringing the organ to the surface without separating them; the density of these adhesions showed them to be of some standing, and it is quite possible that it was they that had given way at the time of the acute onset of symptoms and allowed the contents of the stomach to escape through a previously existing perforation in its wall. The limited area of peritoneum soiled by the contents of the stomach rendered the cleansing of the cavity easy and capable of being carried out with very little disturbance of the intestines and other viscera.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

A CASE OF CHONDRO-CARCINOMA OF THE RIGHT TESTIS, FOR WHICH CASTRATION WAS PERFORMED.

(Under the care of Mr. T. VINCENT JACKSON.)

MANY tumours of the testis are found to contain portions of cartilage embedded in their substance, and the only other organ which is similarly affected with equal frequency is the parotid gland. Another pathological bond of connexion between these two organs is the fact that the inflammatory process in mumps is liable to involve both of them. Malignant growths may arise in healthy tissues or they may involve, as in the case recorded below, non-malignant tumours; and in such cases the malignant growth has probably attacked the pre-existing tumour because of its low power of resistance.

A man, aged 40 years, was sent to Mr. Vincent Jackson by Dr. Sydney Partridge and was admitted into the Wolverhampton and Staffordshire General Hospital on Sept. 9th, 1900, on account of a sarcocele of the right testicle. The patient was married and his circumstances were ample for his position in life. He had not been troubled with any particular care or mental anxiety, his health and appetite were good, and he had maintained his ordinary habit of body. There was a clean sheet as regards any hereditary tendency to malignant disease, and none of the present generation of his relatives had been victimised by this disease in any of its forms. The previous history was very incomplete, but the patient was decided on the fact that he had never suffered from syphilis or traumatism. His personal knowledge of the enlargement of the testicle dated back only seven or eight months; probably this is to be accounted for by the absence, or almost the entire absence, of any subjective symptoms. The growth, however, continued, and as the weight appeared to cause lumbar pain he sought advice.

On examination the testicle, supported by the left hand, appeared to the eye to be massive in size and in weight unusually heavy, and all over it was non-resistant, with no suspicion of fluid. There were no isolated masses of cartilage; the tumour was non-transparent; here and there subcutaneously a distended vein was visible. No glandular enlargement was detected either by superficial or deep pressure in the right inguinal region. The condition of the lumbar lymphatic glands was undetermined. The liver was not enlarged. No diagnosis was made as between sarcoma and carcinoma. The report as to the urine was favourable.

On Sept. 12th, under an anæsthetic, the right testicle was removed, care being taken to detach with it as much of the cord as could be reached. The organ weighed over a pound and a portion was sent to the Clinical Research Association for examination and a report. On the 21st the scrotal wound had quite healed, and on the 26th the patient left his bed. On the 28th an unexpected incident occurred, for in the morning hæmoptysis supervened and every effort was made to determine the cause. All physical means, such as percussion and the use of the stethoscope and of the thermometer, were resorted to, but with a negative result, no evidence of tuberculous deposit being detected. Several specimens of sputum were examined and no tubercle bacilli were found. There was no disease or enlargement of the aorta. On Oct. 5th there was obtained from the Jenner Institute of Preventive Medicine a 10 per cent. dilution of Koch's original tuberculin. An injection of 0·01 cubic centimetre diluted with 1 in 100 carbolic acid was given. On the 8th 0·05 cubic centimetre diluted as before with carbolic acid was injected. In each case, five hours after the injection, a rise of temperature to 99·2° F. took place, the general symptoms being *nil*. Dr. E. C. Morland, house physician, undertook the above test assisted by Mr. S. Southall, house surgeon. The presence of tubercle having been negatived by every diagnostic test used, it was felt that the cause of the hæmorrhage might be a cancerous deposit of the lungs. On the 12th the patient wished to be discharged. The expectoration now consisted of a little mucus, containing occasionally a little blood. On Nov. 14th Mr. Jackson received an announcement from the patient's wife that her husband had died on Nov. 3rd from a severe and uncontrollable attack of lung-bleeding. Later, Mr. Jackson was instructed that the patient had been buried without any post-mortem examination of the lungs.

Microscopical examination.—Mr. J. H. Targett's report on the specimen sent to the Clinical Research Association is as follows: "This is a composite tumour of the testis, congenital in origin. There are nodules of cartilage, bands of unstriped muscle, and tubules lined with columnar-ciliated epithelium. Some of the cysts are filled with laminated epithelium which is undergoing a keratoid change. But the strangest thing in the section is an apparent infection with recent tubercle. Groups of giant cells are seen resembling those of tubercle, though they may be of the nature of phagocytes, although it is certain that tumours of all kinds may become infected with tubercle. The tumour is malignant in its present condition, though starting probably in some congenital inclusion. The term 'chondro-carcinoma' is now sometimes applied to this variety of growth. In the absence of other evidence I should not like to speak definitely about the tuberculous infection. It is a very interesting specimen."

Remarks by Mr. JACKSON.—On carefully considering the report of the microscopical examination of the tumour it seems to be very difficult to classify it accurately, for it contains a mixture of dissimilar elements which renders it scientifically distinct from an ordinary example of cancer.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Chronic Mastitis and its Relation to Tumour Formation.—Broncho-œsophageal Fistula.—Hæmorrhagic Pancreatitis with Fat Necrosis.

A MEETING of this society was held on Dec. 18th, Mr. W. WATSON CHEYNE, the President, being in the chair.

Mr. F. T. PAUL (Liverpool) read a paper on Chronic Mastitis and its Relation to Tumour Formation (illustrated by a lantern demonstration and microscopic specimens). He commenced by remarking that the tendency of chronic inflammation of the mammary gland to end in tumour formation was a fact by which he was more impressed every year. It was well known that cancerous breasts almost constantly showed microscopical changes indicating a preceding chronic mastitis, and that breasts removed for simple chronic mastitis frequently presented appearances suggestive of the commencement of cancer. The same was also true of innocent tumours, even of those occurring early in life. The varieties of chronic mastitis were discussed. In the tuberculous form of mastitis actinomycotic-like bodies were described as present in five or six cases. In the simple form of mastitis it was considered that there was no true pathological distinction between cases occurring in early life

and those met with during the period when the breast underwent involution, as all the proliferative and cystic changes characteristic of the later form were sometimes present in the early kind. A case of marked bilateral chronic mastitis occurring in a girl, aged 18 years, and showing the cystic, intracystic, peri-acinous, and epithelial changes in an excessive degree was described. The histology of "involution mastitis" showed, said Mr. Paul, that it commenced as a chronic interstitial inflammation, passing into a cirrhotic change accompanied by cystic alterations in the acini, and generally by a considerable increase in the gland elements. At the stage of involution in some cases resolution took place; in others the irritation continued to be evidenced, especially in the peri-acinous connective tissue, which after prolonged stimulation might end in the growth of a fibro-adenoma. In other examples, or at other parts of the same organ, the epithelial structures responded chiefly, and intra-cystic papilloma or carcinoma might be originated. Attention was called to the following points: the association of chronic mastitis with adenoma in early life and also with the cystic and other varieties met with at a later period; to its almost constant presence in conjunction with mammary cancer; to the marked bilateral mastitis which precedes bilateral cancer; and especially to the highly suggestive appearances seen under the microscope in specimens of chronic mastitis. Taking these facts in conjunction with clinical experience it seemed certain that chronic inflammation of the breast, if not the actual cause, was at any rate the frequent predisposing cause of tumour change in the mamma and in Mr. Paul's opinion rendered excision desirable in all marked or inveterate cases.—The PRESIDENT said that he did not gather whether Mr. Paul regarded chronic mastitis as a precursor of all cases of cancer or whether that was only one mode in which it arose. The subject was interesting in relation to the possible parasitic origin of cancer. On the one hand Mr. Paul's view rather upset this hypothesis, but on the other chronic mastitis might be only a necessary condition to the parasitic growth.—Mr. RAYMOND JOHNSON remarked that he had examined a large amount of material with the object of determining if the form of mastitis met with in carcinomatous breasts was in any way to be distinguished from that met with under other circumstances. He had gradually come to the conclusion that the proliferative epithelial changes found in such cases, although very marked, were not distinctive. As to the close relation between carcinoma and chronic mastitis he had no doubt, but it seemed impossible to trace the one condition without interruption into the other, and it was probable that some other cause must be superadded to the mastitis to cause cancer. Mr. Johnson did not believe that the ordinary fibro-adenoma of the breast of young women was the result of chronic inflammation. He also remarked that in his experience there was no evidence that adenoma of the breast tended to undergo a transformation into carcinoma.—Mr. D'ARCY POWER congratulated Mr. Paul on his specimens. On looking at them carefully he could not fail to notice an essential difference between the parts which that gentleman had indicated as mastitis and those which he had indicated as cancer.—Mr. S. G. SHATTOCK endorsed the view of those who thought that there was something essentially different between the inflammatory and carcinomatous processes. He asked whether the specimens had been stained for "cancer bodies." If these were present then the structure was cancer, but if not then it was not cancer. As regarded the "actinomycotic" bodies to which Mr. Paul had drawn attention, he asked if they had been submitted to any bacteriological stains and he proposed that they should be referred to the morbid growths committee. He differed from Mr. Paul in his view on tuberculous disease of the breast. He had long thought that the fatty changes of the epithelium in mammary carcinoma were of the physiological kind. He had, however, tested many mammary carcinomata for the reaction with rennet, but in all cases with a negative result.—Mr. PAUL, in reply, confessed that he could not see his way at present to subscribe to the parasitic theory of cancer, though he was quite willing to do so when sufficient evidence was brought forward. "Cancer bodies" had not been tested for in the specimens. On the whole he agreed with Mr. Raymond Johnson that there was a gap between chronic inflammation and cancer and he did not believe that chronic inflammation went straight on to cancer without a break.

Dr. J. H. DRYSDALE exhibited a specimen of Broncho-œsophageal Fistula derived from a girl aged 17 years. At the age of three years she had swallowed a shilling. She was admitted to hospital on account of the vomiting which occurred every time she took food, the vomit containing mucus and pus with food. At the necropsy an opening was found on the anterior surface of the œsophagus leading through the bronchus into a cavity at the apex of the left lung.

Mr. H. A. SCHÖLBERG exhibited specimens from a case of Hæmorrhagic Pancreatitis with Fat Necrosis. On Nov. 18th, 1900, the patient had been suddenly seized with severe pain and vomiting. He was admitted to hospital on the 22nd; the diagnosis pointed to gastritis. Eight days later he died suddenly. At the necropsy all the fat connected with the intestines showed fatty necrosis. The pancreas was thickened and matted to the tissues in front of it and it was the seat of hæmorrhage. The patient had during life a large quantity of sugar in the urine, but he was stout and had exhibited none of the other signs of diabetes. Most of the cases of hæmorrhagic pancreatitis which had been reported had been mistaken either for peritonitis or for intestinal obstruction, but this case did not present the symptoms of those conditions.—In reply to Dr. ROSE BRADFORD Mr. SCHÖLBERG said that there was no embolism of the splenic artery. All the arteries of the abdomen were normal. There was no fatty necrosis in any other part than the body.

CLINICAL SOCIETY OF LONDON.

Ankylostomiasis.—Hæmatoporphyrinuria.—Pyo-pericarditis Treated by Incision and Drainage.—Concretions of Uric Acid in Gonorrhœal Rheumatism.

A MEETING of this society was held on Dec. 14th, Sir R. DOUGLAS POWELL, Bart., the President, being in the chair.

Dr. W. J. TYSON (Folkestone) read a paper on a case of Ankylostomiasis. The patient, a man, aged 34 years, had for the past 15 years lived in China and had been quite well until May, 1899, when he was told that he was suffering from malaria. At this time he was living in Singapore. Subsequently he became very anæmic and suffered from indigestion. He noticed that his stools were often reddish in colour and attacks of faintness were common, with much breathlessness and palpitation on the slightest exertion. He also had dimness of vision, with partial loss of hearing. During a sojourn of 14 days in Singapore, on his way to England, the malarial parasite was discovered in the blood, and on account of the excessive anæmia the fæces were examined and there was found in them the ova of ankylostomum duodenale. A course of thymol was carried out on board ship, but the result was not satisfactory. Three doses of the drug of 10 grains each were given. Dr. Patrick Manson saw him on his arrival in London and confirmed the diagnosis of ankylostomiasis. He advised a course of thymol and placed him under the care of Dr. Tyson. He was admitted into the Folkestone Hospital on Sept. 23rd, 1899, suffering from severe anæmia. There were no enlargement of the liver or of the spleen, no œdema, and no retinal hæmorrhages. He complained of pain in the epigastrium and of insomnia. On Sept. 24th two doses of Carlsbad salts were given in the morning, and when the bowels had acted then thymol was given in 30-grain doses every two hours on four occasions, 120 grains in all. During its administration the bowels acted several times. At 7 P.M. a further dose of Carlsbad salts was given and the bowels again acted. On examination of the fæces a large number of worms and ova were found. The thymol produced, with the exception of a feeling of sickness, no unpleasant effect. A week later the same treatment was repeated on account of two or three worms being found in the motions. He made a rapid and complete recovery. Dr. Tyson remarked that this parasite should be remembered as a cause of progressive and obstinate anæmia. The large doses of thymol had an extraordinary effect on the parasite, but apparently did not affect the patient in any poisonous way. It was interesting to note in this case the presence of the malarial parasite with the ankylostomum duodenale; it was not uncommon for the two parasites to dwell in one host. When this was so it was important to settle the relative value of each cause, for the administration of thymol was not a suitable treatment for malarial disease or for any other form of anæmia.—Dr. F. S. TOOGOOD remarked that the presence of the

malarial parasite in Dr. Tyson's case was very interesting in its bearing on the disease known as kala azar. This was a very fatal malady which was always endemic and sometimes epidemic in the tea-planting districts of Assam. It was long thought to be due to the presence of the ankylostoma, but Major G. M. J. Giles, A.M.D., had shown that although the parasite was present in many of the cases yet the disease was essentially malarial. The spleen was often enormously enlarged and examination of the blood revealed the malarial parasite and great diminution of the white corpuscles as well as of the red corpuscles. The ankylostomiasis was treated by the administration of thymol which usually caused much pain and often vomiting.—Dr. TYSON, in reply to the PRESIDENT, said that the thymol had been given in cachets. It was necessary to give large doses to produce the desired effect upon the worms. To avoid the poisonous effects the bowels must be very freely moved and all forms of alcohol in which thymol was soluble must be avoided.

Dr. JAMES CALVERT communicated a paper on a case of Hæmatoporphyrinuria not due to Sulphonal (with a report on the urine by Dr. A. E. Garrod). The patient, a woman, aged 32 years, single, was admitted on Jan. 15th, 1900, into St. Bartholomew's Hospital for hæmatemesis which had occurred on Jan. 13th. She had a history of indigestion and the diagnosis was gastric ulcer. As no urine was passed during the six hours after admission a catheter was used and 20 ounces of dark, cherry-coloured urine were drawn off. The urine was faintly acid and its specific gravity was 1016. No albumin, no sugar, no blood, no bile, and no casts were present. The spectroscope showed the bands of hæmatoporphyrin. The patient noticed the dark urine on Jan. 14th, but she said that "it was all right before then." She had passed similar dark urine about a year before this attack. At that time she was suffering from indigestion, but she had no hæmatemesis and, so far as she knew, no melæna. She denied taking any sulphonal and her medical attendant wrote to say that he had never given her the drug. On Jan. 19th an examination of the blood was made: hæmoglobin, 48 per cent.; red blood corpuscles, 2,292,000; and white blood corpuscles, 8500. On Jan. 23rd another blood examination was made: hæmoglobin, 54 per cent.; red blood corpuscles, 3,880,000; and white blood corpuscles, 11,000. On Jan. 25th the blood examination was as follows: hæmoglobin, 62 per cent.; red blood corpuscles, 3,968,000; and white blood corpuscles, 11,000. After this the percentage of hæmoglobin and the number of the red corpuscles steadily increased, and the urine gradually returned to its natural colour. Throughout the case the hæmatoporphyrinuria did not appear to give any manifestations of its own. All the symptoms present could be attributed to the hæmatemesis. The patient made an uninterrupted recovery and she left the hospital on March 8th. Dr. Calvert remarked that eight cases of hæmatoporphyrinuria not due to sulphonal poisoning had been recorded. They were mentioned in Dr. A. E. Garrod's article in the fourth volume of the Encyclopædia Medica. They all ran a favourable course with the exception of Ranking and Pardington's two cases which occurred at the same time in different rooms of the same house. These two cases were severe, presenting symptoms similar to those of sulphonal poisoning, which, however, was carefully excluded—one of these patients died and the other recovered. There was no post-mortem examination on the fatal case. The fact that the hæmatoporphyrinuria occurred after hæmatemesis was interesting because Professor B. J. Stokvis held that hæmatoporphyrinuria occurring in sulphonal poisoning was due to the absorption of altered blood from hæmorrhages produced by the drug in the mucous membrane of the stomach and intestines, a view which was opposed, among other things, by the circumstance that such hæmorrhages were by no means constantly found at the post-mortem examination of these cases. The blood counts were instructive, showing as they did the increase of hæmoglobin and of red blood corpuscles occurring together with the hæmatoporphyrin in the urine. In its general characters the urine which was passed closely resembled sulphonal specimens. Hæmatoporphyrin was present in considerably larger amount than in ordinary morbid urines, but, as in sulphonal cases, the abnormal colour of the urine was chiefly due to other less known pigments. The hæmatoporphyrin could be removed by the soda method and after its removal a purple pigment could be extracted which did not agree in properties with any known urinary colouring matter. To this pigment the colour of the urine appeared to be mainly due. Owing to its instability the purple pigment could not be obtained in a state of purity, as it was changed by heat and could not be extracted by ordinary solvents such as chloroform, ether, or amylic alcohol.—Dr. A. E. GARROD remarked that the case was of interest because of the rarity of hæmatoporphyrinuria apart from the administration of sulphonal and because of its association with hæmatemesis. He thought that the urinary condition was not really dependent upon this latter condition, as in several cases of hæmatemesis and melæna he had failed to find any unusual amount of hæmatoporphyrin in the urine. Another point of interest was the steady increase of red corpuscles and hæmoglobin in the period during which hæmatoporphyrinuria was observed. This lent further support to the view that the excessive excretion of this pigment was due to a perversion of the processes disposing of effete hæmoglobin rather than to an unduly active hæmolysis.—Dr. W. H. B. BROOK (Lincoln) referred to a case of hæmatoporphyrinuria which he had seen 12 years ago in which no sulphonal had been administered. The patient was suffering from pernicious anæmia. In that case there was found to be a very great excess of the aromatic sulphates over the inorganic sulphates.—Dr. CALVERT, in reply to the PRESIDENT, said that the hæmatemesis was due to gastric ulcer. No estimation of sulphates in the urine had been made.

Dr. JOHN FAWCETT and Mr. F. J. STEWARD communicated a paper on a case of Pneumococcal Suppurative Pericarditis treated by Incision and Drainage. The patient was a boy, aged eight years, who was admitted into Guy's Hospital on July 16th, 1900. Illness began on July 10th. On admission there were signs of lobar pneumonia at the right base. Signs of pericarditis were first noted on July 17th. Ten days later the pericardium was explored as the evidence of infusion had increased and the boy's general condition had so deteriorated that it was thought the effusion was possibly purulent. The area of dulness reached above the first intercostal space one inch to the right of the sternum and to the left two inches external to the nipple; there was also marked tenderness of the epigastrium on pressure Pus having been found on exploration the pericardium was incised and drained by removal of a portion of the fifth left costal cartilage. After operation the boy's condition much improved, but 14 days later a small localised empyema of streptococcal origin was found on the right side. The necropsy showed that the condition of the pericardium was rapidly clearing up and that as far as it was concerned the result was most favourable. It was almost certain that had the patient not developed a streptococcal empyema he would have survived, but he was a very thin, ill-developed boy, and so a most unfavourable subject for so severe a series of infections. Early incision with drainage was certainly the correct treatment for these cases; 45 cases of suppurative peritonitis thus operated on had been recorded, and 16 of the patients (35·5 per cent.) had recovered. Dr. Fawcett remarked on the absence of friction sound, which had been frequently listened for in this case. The temperature gave no indication of the suppuration within the pericardium.—Mr. E. P. PATON referred to a case which he had under his care five years before in which he regretted that drainage had not been carried out. It was a case of acute infective osteo-myelitis of the humerus, complicated by a large collection of pus in the pericardium. Aspiration was first performed and pus was drawn off, the patient being thought too ill for further operation. The patient became very ill on the next day, and when almost moribund the house surgeon, suspecting re-collection, attempted to repeat the aspiration and inserted the needle on the right side of the sternum. The patient died shortly and it was found that the left auricle had in some unaccountable way been wounded on its posterior aspect.—Dr. W. C. BOSANQUET remarked that considerable difficulty attended the diagnosis of pus in the pericardium and he asked what were the signs upon which Dr. Fawcett relied. He also asked whether it was possible to do operations upon the pericardium under local anæsthesia such as that produced by cocaine. He had been particularly struck with the large number of cases of pericarditis which had occurred during the past year in the Charing Cross Hospital amounting to four or five times the normal number. He would like to know what was the experience at other hospitals and whether any cause could be suggested. In such cases as had been examined the pneumococcus was certainly the most frequently occurring

organism. This organism had a marked proclivity to the pericardium in children and in young people.—Mr. F. C. WALLIS thought that local anæsthesia was most advisable in such cases. Where general anæsthesia had been employed the result in his experience was mostly fatal. He regarded eucaine as decidedly preferable to cocaine. The latter had distinct toxic effects which were not observable in eucaine. He had used as much as four drachms of a 4 per cent. solution of eucaine without any evil effect, and he had even excised rib under local eucaine anæsthesia. He trusted that operations upon the pericardium would be more frequent. In reply to the PRESIDENT he said that he had used cocaine both for adults and children.—Dr. PERCY KIDD referred to a case of suppurative pericarditis in which several drachms of a 4 per cent. solution of eucaine had been injected and swabbed about the parts. Most pain had been experienced when the pericardium was taken up with the forceps and experimental researches had shown that this membrane was acutely tender. The absence of a friction sound was unusual in suppurative pericarditis, and he mentioned an interesting case in which after death a pericardial suppuration was discovered, though there were no signs during life.—Dr. A. F. VOELCKER asked if the brain had been examined in the case under discussion. In cases due to the pneumococcus death was often brought about by meningitis. Cases of pneumococcus infection were often complicated by pleuritis, in which the exudation was so thick that nothing could be drawn off by the needle, and he suggested that in such cases where the pneumonia did not resolve it would be advisable to open the pleura and drain it.—Dr. A. E. GARROD remarked that suppurative pericarditis was difficult to diagnose in adults, but it was even more so in young children, and any means which helped to clear this difficulty was of value.—The PRESIDENT asked if a preliminary puncture had been made prior to the operation. The general symptoms of suppurative pericarditis as of empyema were most misleading. The chart, for instance, of the case under discussion gave no indication of suppuration and profuse sweating often occurred in children with simple serous exudation. He asked what cause could be traced and whether there had been previous cases in the same house.—Mr. ARTHUR BARKER agreed with the value of eucaine and local anæsthesia, but the emotional condition of children must not be forgotten, and on this account local anæsthesia was not always available. A certain fortitude on the part of the patient was necessary and he referred to a case in point.—Mr. WALLIS added, in reply to the PRESIDENT, that in using local anæsthesia for children he had sometimes adopted the method of blindfolding them and using local freezing for the needle puncture.—Dr. FAWCETT, in reply, referred to the difficulty in diagnosing suppurative pericarditis. In his case the symptoms, which had enabled him to come to that conclusion, were the increase in the pericardial dulness, the progressive anæmia and wasting, and finally an acute tenderness at the lower end of the sternum. An exploratory puncture had been made prior to the operation in the fourth interspace one inch to the left of the sternum. The etiology of his case was obscure; there had been no cases in the same house. His belief was that the brain had been examined but nothing had been found.

Mr. W. G. SPENCER read a paper on a case of Gonorrhœal Rheumatism, with bursæ which were filled with concretions of urate of soda. The patient was a coloured man, aged 33 years. He had suffered 14 years previously from gonorrhœa and 10 years ago he had a stricture which was divided under anæsthesia. No instrument had been passed into the urethra since. For six or seven years he had suffered from attacks of spasmodic pain in his legs, lasting two or three weeks at a time, especially in August and September (in Demerara). During the attacks the knees were stiff. Six years ago a swelling formed on the dorsum of the left foot, then over the tubercle of the left tibia, and then on both sides of the heel. The patient's habits were temperate and there was no family history of gout. On his arrival in this country he was unable to walk; the skin over the knees was red, shiny, hot, and tender, and the joints could not be moved without pain. Examination revealed the existence of a spasmodic stricture at the membranous urethra. The patient was treated for a time by dilatation of the stricture and the joints improved, but the bursæ remained unaltered. The latter were explored and search was made for gonococci, some thick, white, semi-solid material being withdrawn, which proved to be sodium biurate free from organisms. He left the hospital six weeks later. Mr. Spencer suggested that the concretions in the bursæ owed their existence to the gonorrhœal inflammation.—Mr. GEORGE EASTES asked what were the grounds upon which the bursal condition had been associated with the gonorrhœa. He doubted the connexion. Might it not be that the urate of soda had been deposited before the patient had been attacked by gonorrhœal rheumatism?—Mr. SPENCER, in reply, remarked that they had to rely upon the history of the patient.

OPHTHALMOLOGICAL SOCIETY.

Exhibition of Cases and Specimens.

A CLINICAL meeting of this society was held on Dec. 13th, Mr. G. ANDERSON CRITCHETT, the President, being in the chair.

Mr. J. H. FISHER showed a case of Congenitally Imperfect Separation of the Iris from the Back of the Cornea. The patient was a woman, aged 27 years, who had been treated recently at the London Hospital for an attack which appeared to be one of acute or subacute glaucoma. On examination the whole anterior surface of the left iris was pitted. At the outer and lower part there was a wide adhesion of the iris to the back of the cornea, while on the inner side it was adherent to a less extent. Mr. Fisher worked out the refraction under hematropine with the result that the tension rose to + 1. There was pain and the pupil remained dilated, although that of the right eye had regained its normal condition by the next day. He considered that this case threw some light on congenital glaucoma, as the position of the iris here clearly was the cause of the increased tension.

Mr. W. T. LISTER exhibited a large Dermoid Tumour on the Cornea of an Ox, extending to the Sclera, from which grew a Bunch of Long Hairs.

Mr. G. T. BROOKSBANK JAMES showed:—1. A rare example of Persistent Papillary Membrane. The patient was a child, aged eight years, who attended on account of a convergent squint. She was one of a family of four, none of the others having any eye affection. When the patient was 16 months of age there was a slight inflammatory attack which lasted a few days only. In the right eye there was a convergence of 40 degrees. The iris was of a pale greyish-yellow colour. The normal pupil was occupied by strands which inclosed several openings. In the left pupil there were some small tags of pupillary membrane, though vision in the eye was good in spite of five dioptres of hypermetropia. In the affected eye the vision was extremely bad but the projection was good. 2. A boy, aged 11 years, who with his Hypermetropia Corrected had Normal Vision. In the fundus there was a large pigmented area below the disc which had a crescent. The pigment was mostly under the vessels but near the disc they dipped into it. There was also a strand of persistent pupillary membrane. Mr. James referred to some cases shown by Mr. Sydney Stephenson which exhibited somewhat similar changes.

Mr. A. STANFORD MORTON showed a Growth on the Cornea in a boy, aged seven years, who was first seen in August, 1900. At the upper corneal margin there was a yellowish spot four millimetres in diameter; it was not raised above the corneal margin and it extended downwards to about the margin of the undilated pupil. He tried to shave it off, but failed to do so. He then transfixed it and entered a space full of yellowish material which he scraped out. It was found on examination to consist of connective tissue with some elastic fibres but no fat. On the deep surface of the parts removed was some cellular material in which there appeared to be a few giant cells, but there was nothing typical of tubercle. It certainly was not congenital and it continued to spread but very slowly.—Mr. E. NETTLESHIP referred to a case which he had seen with Mr. T. H. Bickerton which was somewhat similar, and here after a time it ceased to grow.—Mr. G. H. GOLDSMITH also referred to a somewhat similar case.

Dr. A. H. THOMPSON exhibited a case of Superficial Choroidal Atrophy without subjective symptoms in one of a family the members of which were subject to night-blindness. The patient was a woman who made no complaint of her vision which was found on testing to be $\frac{6}{9}$ in one eye and $\frac{6}{6}$ in the other. The maculæ were normal and the fields

were full. In each eye there was a large area of choroidal atrophy; there was, however, no night-blindness or diminished light sense. This patient's father had difficulty in seeing objects, though he could see to read small print, and there were several members of the family who suffered from night-blindness.—The PRESIDENT had found that many of these patients derived very great assistance from wearing glasses of a golden-yellow tint, and he thought that the cutting off of the violet rays by glasses of this colour might be the explanation of this, although they did not help all cases.—Mr. EDRIDGE-GREEN thought that it would be interesting to see if this patient saw with the macula as quickly as a person with normal sight. He had tried the golden-yellow glasses and in a dim light he at first saw better with them, but after wearing them for some time he certainly saw no worse when he removed them.—Dr. TEMPEST ANDERSON discussed the use of yellow glass employed in the photographic camera when taking a picture of the sky and clouds.

Dr. W. C. ROCKLIFFE exhibited an instance of Conjunctival Growth; (?) Pinguecula. This patient, aged 12 years, was first seen in August, 1900. The mother of the patient stated that at birth a small red pimple was noticed at the outer side of the left cornea and it had slowly spread since then. A crescentic pigmented thickening surrounded the outer third of the cornea which was two millimetres in thickness. It was freely moveable with the cornea and had no deep attachment, so that a probe could be passed beneath it. It had not enlarged to an appreciable extent during the last three months. There was a tuberculous history, but a piece which he had removed for examination had not yet been reported upon. The fundus was normal and the vision was §. Dr. Rockcliffe stated that he did not think it malignant and he mentioned a similar case shown to the society by Dr. W. J. Collins. In the *Ophthalmic Review* for October was an abstract of a paper by Le Grange in which he stated his belief that these growths were usually of a dermoid nature and that they contained hairs, but in this case no hairs were present. Dr. Rockcliffe stated his intention of dissecting it out.

Mr. R. MARCUS GUNN showed a case of (?) Tubercle beneath the Ocular Conjunctiva. The patient was a girl, aged 13 years, beneath the conjunctiva of whose left eye near the cornea was a vascular growth. She had tuberculous glands, but there was no family history of tubercle.

Mr. J. H. FISHER exhibited a Sarcoma of the Conjunctiva. The patient was a man, aged 28 years, who had been invalided out of the army on account of the eye. In May of last year he first noticed a small red spot which grew and was removed in February of this year. It was removed again in May and also in August for recurrence. There was now a flat yellowish-brown mass which was smooth on the surface and vascular. About one-fifth of the cornea was covered, but the vision was good. There was no glandular enlargement and no specific history. Mr. Fisher proposed to remove the eye, with the growth, as partial operation had proved to be useless.

Mr. C. BLAIR showed an unusual case of Choroiditis. The patient was a woman whose sight had been affected for about three months. Her vision now = J. 20. There was an area of closely-packed choroiditis with almost an entire absence of pigment. The patches were not raised and the field of vision was defective. The vitreous was full of opacities, but there was no specific or tuberculous history.—Mr. W. H. H. JESSOP always looked upon these cases of vitreous opacities as being syphilitic and thought that this case was really of that nature.—Dr. C. O. HAWTHORNE also mentioned a case.

Mr. W. T. HOLMES SPICER showed a Nævus of the Orbit. The patient was a married woman who, when seen in July, 1898, had some proptosis of the left eye due to a vascular tumour. In August of that year Mr. Spicer performed electrolysis without any immediate result. In January, 1899, he again electrolysed the organ. The patient became pregnant and during this time the nævus increased greatly in size. A hard mass was then felt and on cutting into this it was found to be an old blood cyst. Shortly after the cornea ulcerated and the eye was excised. Mr. Spicer then sent the patient to Dr. H. Lewis Jones who considered that owing to the apparent free communication of the growth with the cavernous sinus electrolysis was not safe.—Mr. W. A. FROST suggested that pressure might be beneficial.—The PRESIDENT thought that the growth had better be left alone owing to the danger of cutting into so vascular a structure.

BRITISH GYNÆCOLOGICAL SOCIETY.

Exhibition of Specimens.—Four Abdominal Cases.—Circulatory Phenomena as Sequelæ of the Pregnant Uterus.

A MEETING of this society was held on Dec. 13th, Dr. W. J. SMYLY, the President, being in the chair.

Mr. J. FURNEAUX JORDAN (Birmingham) showed specimens (1) of Carcinoma of the Ovary, and (2) of Tubal Gestation, removed by vaginal cœliotomy.

Mr. F. BOWREMAN JESSETT and Mr. W. BALGARNIE showed a specimen of Tubal Gestation removed by Abdominal Cœliotomy.

Dr. HERBERT SNOW showed a specimen of Pyonephrotic Kidney ruptured by the fall of a picture in a case of uterine carcinoma.

Dr. P. Z. HEBERT showed a specimen of a Nine-weeks Embryo in an intact amniotic sac.—Dr. HEYWOOD SMITH, Dr. SNOW, Dr. J. A. MANSELL MOULLIN, Dr. W. JAPP SINCLAIR (Manchester), and the PRESIDENT took part in the discussion on these specimens.

Dr. GEORGE ELDER (Nottingham) read short notes of Four Abdominal Cases, with comments. The first was a case of acute gonorrhœal salpingitis, in which, after palliative treatment had been tried without success, the tubes were resected by abdominal section, the ovaries being allowed to remain. The second case was that of a very large renal cyst, with the symptoms and signs of an ovarian cyst with twisted pedicle. Repeated examination of the urine had failed to detect any abnormality in it. The third case was one of hysterectomy for a large fibroid, in which the patient made a good recovery, but a week after her return home was taken very ill with renal symptoms, from which she died four weeks later. The cause of death was apparenty septicæmia. The fourth case was the later history of a patient whose ovaries and tubes were removed in 1894 for papilloma. She continued in very good health until the end of last year, when she was lost sight of.—Mr. BOWREMAN JESSETT said that he had reported a case very similar to the second one mentioned by Dr. Elder at a meeting of the society some weeks ago, whilst the third case found a parallel in a case described by Dr. F. A. Purcell two years ago.—Mr. CHARLES RYALL, referring to the first case, said that it was very difficult to know how to advise men who had had gonorrhœa as to when it was safe for them to marry, especially when they had a chronic gleet, for it had been repeatedly proved that the disease might lurk, not only in the anterior urethra, but also in the posterior urethra and in Cowper's glands.—Mr. SKENE KEITH remarked that he had seen a case in his father's practice very similar to the one of hysterectomy reported. The patient did well for some days after operation, except that she was very flushed and somewhat cyanotic. She died some weeks after getting home, and the post-mortem examination showed that there was hardly any kidney substance left.—Dr. JOHN SHAW, in speaking of the first case, said that although the symptoms and sequelæ were very like those of gonorrhœa, he had seen cases of salpingitis, especially of hydrosalpinx, on one or both sides in young women as a result of excessive sexual intercourse. Such a condition usually got quite well under hygienic treatment.—Dr. SINCLAIR observed that 10 or 12 years ago he had a case of papilloma of both ovaries. He was under the impression at the time that the condition was a malignant one. But he saw the patient in the early part of last year and she was then quite well. In another case the pelvis was so overgrown with papillomatous masses as to resemble a bird's nest; but the patient made a good recovery, and although this was five or six years ago, she had since remained quite well.—Dr. ELDER replied.

Dr. R. H. HODGSON read a paper on Circulatory Phenomena as Sequelæ of the Pregnant Uterus.

HARVEIAN SOCIETY OF LONDON.

Exhibition of Cases.

A MEETING of this society was held on Dec. 6th, Dr. W. H. LAMB, the President, being in the chair.

Mr. EDMUND ROUGHTON showed a man who complained of Sciatica. He had a large gumma in the gluteal region. At present it had not yielded to large doses of iodide. Mr. Roughton proposed to give mercury as well.—The case was

briefly discussed by Dr. A. EDDOWES, Dr. ERIC PRITCHARD, Mr. H. W. PAGE, and Mr. RAYMOND JOHNSON.

Dr. YULE read notes of and showed (for Dr. LEONARD GUTHRIE) a case of Alexia due to "Word" and "Letter Blindness." The patient, a man, aged 53 years, had an attack of repeated retching lasting 24 hours on Sept. 29th, 1900. On the following day he found that he could not read aloud or understand the meaning of printed or written matter. He could speak well enough for ordinary purposes, but frequently found himself at a loss for common words, and he often forgot the names of common objects. He could tell the time correctly by the clock, count money, read Arabic and Roman numerals, and do simple sums in arithmetic. His intellect generally and his memory for events, recent and past, were unimpaired. He had no paraphasia or motor aphasia, no "word-deafness," no hemiplegia, and no hemianæsthesia. Dr. Rayner Batten reported that his optic discs, fields of vision, and colour sense were normal. He had no headaches or other cerebral symptoms. He had contracted syphilis 20 years previously. His symptoms at present were inability to read or understand written and printed language and a certain degree of loss of memory for words and names of common articles. Thus, for example, he named "watch," "key," and "pencil" correctly, but could not name a "hand-bell" although he knew what it was. He called eye-glasses "spectacles," but was aware of his mistake. If asked to read aloud he recognised and uttered correctly a few words here and there, but seldom in sufficient number to make sense. Sometimes he guessed a word when he knew its context, or perhaps from its general shape and appearance; sometimes he substituted another word for it more or less resembling it in meaning or sound. His chief trouble was obvious when he attempted to spell a word at sight or to copy it, for he then mistook various consonants for each other. B's, p's, r's, m's, and n's were confused and the result in each case was a nonsense word. He copied "tumbler" as "tunrer" and "pocket" as "roecket," and of course attached no meaning to either word. In copying, also, he left out words and whole lines. Vowels were usually copied correctly. He could write easily from dictation and also spontaneously, spelling fairly well for a man of his education, but after an interval he was unable to read or copy his own writing. Sometimes after prolonged scrutiny the meaning of a word seemed suddenly to dawn upon him; sometimes he spelt it letter by letter and in time got it right. In commenting upon the case Dr. Guthrie remarked on the rarity of uncomplicated word- and letter-blindness and on the fact that it was a complaint from which the uneducated were exempt. Had the patient never learnt to read or to write he would not have known that there was anything the matter with him. At most he would have complained of slight loss of memory for words and names of objects. The various causes of alexia were enumerated, such as motor aphasia, especially in those who could only understand print by framing the words with lips and tongue or uttering them *sotto voce;* verbal amnesia, in which the patient had forgotten the names of the words which he saw; hemianopia; and word-deafness in "auditives" who hitherto had always seemed obliged actually to hear words seen in print in order to understand them. In the present case alexia was proved to be due to word- and letter-blindness by the patient's inability to copy. The freedom from difficulty in reading numerals was not uncommon in such cases and had led to the belief that there was a separate centre for storage of mental images of numerals apart from that for letters and words. It seemed more probable, however, that the images of numerals were retained because they were few compared with those of letters, being nine only as against 52. A similar explanation would account for his recognising vowels better than consonants. The region involved was probably the left visual word-centre situated in the angular gyrus and possibly a part of the supra-marginal convolution. The partial loss of memory for words and names pointed to an affection of the left auditory word-centre in the superior temporal convolution, not sufficient to cause word-deafness. The history of prolonged retching immediately preceding word-blindness made it probable that hæmorrhage from a syphilised vessel in the neighbourhood of the left visual word-centre had occurred. In most cases of the kind, however, thrombosis was the lesion found.

Dr. ALFRED EDDOWES showed a girl, aged 17 years, who presented a condition resembling Lichen Simplex Chronicus extending in a narrow band from the spine to the point of the shoulder, thence in a more broken line down the arm and obliquely across the hand to the first, second, and third fingers. The lesion commenced from eight to nine years ago as an eczema on the back of the hand. As this starting point became worse, apparently as the result of scratching, the disease spread upwards in the above-mentioned line which suggested at first sight the distribution seen in ichthyosis hystrix or nævus linearis, but it was cleaner looking than the latter. Microscopically the papules had much the appearance of lichen planus, but the cell-infiltration surrounded the hair follicles which formed the centre of each papule. The affection which had recently been treated by cauterisation had proved far more rebellious than the more commonly met with patches of lichen simplex chronicus. The extraordinary interest of the affection consisted in its distribution, considering that it was not congenital in origin. Various theories were discussed to explain how such could occur otherwise than as a congenital defect.

Mr. D'ARCY POWER showed a man, aged 64 years, with a Sacculated Swelling on the Radial Side of the Palmar Aspect of the Wrist. The swelling was freely moveable and lobulated. It possessed a well-marked pulsation which was slightly distensile. The swelling appeared three months ago and had gradually increased in size. The patient was a labouring man who had never worn a wristlet and had sustained no injury to his wrist. Mr. Power thought that the question of diagnosis was one of interest and lay between a sacculated radial aneurysm and a ganglion of the sheath of the supinator longus tendon over which lay an enlarged and thickened artery. The aneurysm appeared to him the less likely as such a condition in the radial artery was rare apart from injury and embolism. He proposed however, to cut down upon the tumour and treat the condition he found. But in any case the case enforced the necessity of a careful examination of such swellings in the neighbourhood of arteries before they were incised or an attempt was made to disperse them.—Mr. ROUGHTON thought that the pulsation was not distensile and that the tumour, although fluid, was not compressible. He felt pretty sure that it was a ganglion.—Dr H. A. CALEY considered that the free mobility of the swelling, its lobulated outline, and the fact that the pulsation was not definitely expansile were against its being aneurysmal. The tense feeling on compression told in the same direction and suggested that it was a ganglion intimately connected with the radial artery.

Mr. HUBERT PHILLIPS showed a case of severe Bromide Rash in an Epileptic.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Hæmatocolpus and Hæmatometra.—Inflammatory Conditions of the Colon associated with Septic Abdominal Disease.—Acute Parenchymatous Glossitis.—Exhibition of Cases and Specimens.

A MEETING of this society was held on Dec. 4th, Dr. GORDON BLACK, the President, being in the chair.

Dr. J. B. HELLIER read notes of a case of Hæmatocolpus and Hæmatometra due to atresia of the hymen. The patient, who was 15 years old, showed signs of puberty. The vagina was distended so much that it formed a cystic swelling which reached above the navel. The distended uterus formed a small cystic swelling above the hæmatocolpus. At the vulva there was a protrusion formed by the bulging out of the imperforate hymen. The patient had enjoyed perfect health and the condition was discovered accidentally. The case was treated by slow evacuation of six pints of inspissated menstrual fluid and by the subsequent excision of a circular portion of the septum, followed by drainage and irrigation. The patient made a good recovery and she had menstruated normally since. Dr. Hellier advocated the excision of the tubes by abdominal section when in such cases hæmatosalpinx was also present.—Mr. H. LITTLEWOOD, Dr. JAMES BRAITHWAITE, Dr. E. WARD, Dr. E. O. CROFT, and Mr. C. J. WRIGHT took part in the discussion and Dr. HELLIER replied.

Mr. BASIL HALL (Bradford) read a paper on Inflammatory Conditions of the Colon associated with Septic Abdominal Disease. He recorded three cases in which he had observed a train of symptoms of an unusual character. The chief features of the cases were great distension of the ascending

and transverse colon, accompanied by violent, irregular, and painful peristalsis. There was no diarrhœa but the bowel was totally unable to empty its contents. There was no blood in the stools but very large quantities of mucus were evacuated after gravitation enemata. Flatus was usually passed in large quantities after a hypodermic injection of morphia had been given, suggesting that the condition might be one of spasm in the left colon. The descending colon never became greatly distended but was acutely tender throughout. The only treatment from which benefit had been derived was gravitation enemata of oil emulsion with occasional injections of morphia.—Mr. B. G. A. MOYNIHAN, Mr. J. W. DRAPER, Dr. T. CHURTON, Mr. LITTLEWOOD, Dr. W. EDGECOMBE, and Mr. LAWFORD KNAGGS joined in the discussion and Mr. HALL replied.

Dr. C. OLDFIELD described three cases of Acute Parenchymatous Glossitis. In the first case the patient, aged 39 years, complained that he was unable to swallow solids because of pain in the throat. Six weeks previously he had had a sore-throat and had not been able to swallow solids from then to the date of being seen. When he was first seen there was no enlargement of the tongue, but there was some tenderness which prevented a view of the pharynx being obtained. On the third day the tongue began to swell; there were fulness in the submaxillary region, pain, and a copious secretion of mucus in the throat. Even liquids could not be swallowed. On the fifth day the tongue protruded far out of the mouth and there was great submaxillary swelling. Breathing was difficult because of the mucus in the throat. On the sixth day ether was given with great difficulty. Only a partial anæsthesia was obtained, but sufficient to allow the mouth to be forced more widely open with a gag, and an incision to be made into the tongue, letting out offensive, dirty, watery pus in considerable quantity and under great pressure. Recovery was rapid. The second case was that of a man, aged 40 years. The illness began with a rigor during the night and when the patient was seen on the next morning he had great pain in the throat and was unable to swallow. The uvula was very œdematous and enlarged. The tongue and the tonsils were normal. During the day the tongue began to swell and by the evening of the third day it was very large, forcing open the mouth and projecting through it. Swallowing was impossible, but the breathing was easy. Submaxillary swelling was not so marked in this case as it was in the case which had been described. During the night the swelling of the tongue went down and by noon of the fourth day that organ was of about its natural size. There had been no escape of pus observed. The uvula was still enlarged and it was covered with dirty white membrane on the sides and on the posterior surface. A swab was taken but Dr. E. F. Trevelyan reported that diphtheria bacilli were not found in it. On the fifth day the temperature went up to 104° F. and signs of acute lobar pneumonia developed. This condition ran an ordinary course and the patient convalesced quickly. In the third case the patient, a man, aged 31 years, had had an acute tonsillitis seven days previously to the onset of the affection of the tongue. In this case also there was a rigor at the commencement of the illness, and in the course of five hours the tongue swelled so as to completely fill the mouth and to prevent swallowing. On the tip of the tongue was observed a small ulcer which had been caused by a cut from tacks which he placed in his mouth while following his employment—that of a cobbler—and from this the swelling had commenced and had spread. On the third day the swelling disappeared almost as quickly as it had appeared, no escape of pus being observed. The nature of the last case was obviously a cellulitis of the tongue and the others were most probably of the same character. In the second case the disease appeared first in the uvula and it was probably there that infection took place. The long duration of throat symptoms prior to the development of the swelling of the tongue pointed to some ulcerative condition there, most probably in the lingual tonsil. Considering how common were wounds and ulcers of the tongue it was remarkable that the disease of acute parenchymatous glossitis was so rare; especially might they expect to find it more frequently in the foul ulcerative mouths of certain diseases.—Dr. CHURTON, Dr. E. F. TREVELYAN, Dr. SANDERSON LONG, and Dr. A. BRONNER took part in the discussion and Mr. OLDFIELD replied.

Among the cases, pathological specimens, &c., shown were the following:—

Dr. CHURTON: A girl, aged 18 years, with Optic Neuritis in the Left Eye with a history of influenzal meningitis commencing with aphasia.

Mr. H. SECKER WALKER: 1. A case of Chronic Mastoid Disease operated upon by Ballance's method. The primary operation, which was performed a month ago, was followed a week later by the epithelial grafting operation and in a fortnight the whole surface was sound and dry. 2. A Diagrammatic Model to illustrate the Various Forms of Astigmatism.

Mr. C. J. WRIGHT and Mr. W. THOMPSON: Two specimens of Fibroma Removed from the Vagina.

Dr. A. MANTLE (Halifax): (1) Six cases of Raynaud's disease; and (2) two specimens of Osteo-sarcoma of the Ilium, causing Sciatica, with Secondary Deposits in the Lung.

Mr. T. R. JESSOP: (1) Uterine Myoma removed by Abdominal Hysterectomy; (2) Uterine Myoma, combined with Cervical Carcinoma and Purulent Endometritis, removed by Vaginal Hysterectomy; (3) Uterine Carcinoma removed by Vaginal Hysterectomy; and (4) Tumour (? sarcoma) of the Kidney presenting Difficulties in Diagnosis.

Mr. PRIESTLEY LEECH (Halifax): Skiagrams of Sarcoma of the Femur, Spontaneous Fracture of the Femur from New Growth, and showing Callus in the attempt to Repair.

Mr. LITTLEWOOD: (1) Hysterectomy for Hæmatometra with Suppurating Ovarian Cyst (patient and specimen); (2) large Stone removed from Common Bile Duct and another from the Gall-bladder from a woman suffering for 18 months with intense jaundice (patient and specimen); and (3) Malignant Disease of the Gall-bladder removed with Wedge-shape Portion of the Liver and a large Stone from the Duodenal Orifice of the Common Duct (specimen).

Dr. A. G. BARES: (1) Spastic Paraplegia due to Measles; and (2) grave Nervous Disease due to Measles.

Dr. WARD: (1) Cyst of the Fibula; (2) Uterine Tumour with Hæmato-salpinges; (3) Tuberculous Disease of the Hip-joint with complete Separation of the Epiphysis; and (4) Sarcoma of the Abdominal Wall.

Mr. G. MILLHOUSE and Mr. G. P. ANNING: (1) Pulsating submaxillary tumour (facial aneurysm?) associated with Undue Pulsation of the Subclavian Artery on the same side; and (2) Circumscribed Scleroderma of the Infra-orbital Region.

Mr. MOYNIHAN: (1) Growth of Sigmoid removed from a Congenital Hernia of the Sigmoid Flexure; (2) two examples of Complete Excision of the Umbilical Epiploceles (Condemin's method); (3) Pudendal Hernia, with Vaginal Cyst; (4) an example of Gangrenous Meckel's Diverticulum, causing Acute Obstruction; (5) two Gall-stones removed from Cystic Ducts, one stone removed from the common bile duct; and (6) Arterio-venous Aneurysm of the Popliteal Space the result of a Mauser Bullet-wound received at Spion Kop.

Mr. P. J. CAMMIDGE: Cast of a large Femoral Hernia.

Dr. T. WARDROP GRIFFITH: (1) A Cardiac Lesion for Diagnosis; (2) Post-hemiplegic Mobile Spasm of the Choreic Type; and (3) (with Dr. C. M. CHADWICK) Secondary Carcinoma of the Liver, with Terminal Tuberculosis.

Mr. LAWFORD KNAGGS: (1) Sarcoma of the Clavicle; and (2) four Malignant Pustules (Anthrax) from the same patient.

Mr. THOMPSON: Two specimens of Multiple Myomata of the Uterus removed by Kelly's Method of Hystero-myomectomy.

Mr. BASIL HALL (Bradford): Malignant Intussusception removed by the Sacral Route.

Dr. TREVELYAN: A case of Post-diphtheritic Debility in which the knee-jerks were absent six months after the attack.

Mr. MAYO ROBSON: Case of Coxa Vara (patient shown).

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Open-air Treatment of Phthisis.

A MEETING of this section was held on Nov. 16th, Sir CHRISTOPHER NIXON, the President, being in the chair.

Dr. F. HOWARD SINCLAIR gave a short account of his experience of two years of Open-air Treatment of Phthisis in the Forster-green Hospital, Belfast, and in the Rostrevor Sanatorium. The internal administration of antiseptics he

found of little value. In selected non-febrile cases without marked physical signs good results had been obtained from tuberculin. Tuberculin was also used in the Adirondacks Sanatorium in America. Shelters and verandahs were used in wet or stormy weather, though when possible patients remained in the open up till 8.30 P.M. Electric light for this purpose was necessary. All reading and writing were done outside, the use of sitting-rooms being interdicted. It was most necessary that a sanatorium should be built for that special purpose, as no ordinary dwelling could be successfully adapted. Shelter by trees as well as local formation of country seemed to be one of the most essential features of a site. In exposed situations it became almost impossible to keep the windows open. Proximity to centres of population for obvious reasons was very objectionable. The greater the number of cases one had to deal with the more did the sanatorium physician see the absurdity of treating every case by one fixed rule. Much of the success depended on the rational allotment of rest, exercise, and dietary. Gain in weight was not always accompanied by lung improvement. Administration of large quantities of milk might for a time make up for the refusal to eat solid food. Patients must be made to understand that tuberculous sputum was a carrier of infection and that it was a means both of self-reinfection and of communicating the disease to other persons. Cremation was the most satisfactory method of disposing of sputum. Of all known methods of treatment of phthisis the hygienic, "open-air," or sanatorium system was undoubtedly the best.

Dr. J. F. O'CARROLL said that with his experience of Newcastle (co. Wicklow) Hospital he was strongly in favour of the open-air treatment, but care should be taken not to overdo it. For instance, a highly febrile patient was not fit for such methods.

Dr. E. J. MCWEENEY said it was a common belief that when the sputum became small in quantity, and that when the case had obviously improved, the infectivity of the sputum was diminishing and the number of bacilli in it was small. Recently he had a striking example of the opposite state, when he found that the scanty sputum of a patient who had gained in weight and improved in every way was loaded with bacilli. He ventured to plead for the continuance of the tuberculin treatment, not in its original form where it was considered necessary to produce violent constitutional disturbance, but in small doses, continued for a fortnight at a time with intervals. He did not advocate it from clinical experience, but he had read most carefully worked-out accounts of the effects of this treatment of patients in Germany, and he was convinced that important results could be achieved by it.

Sir J. W. MOORE said that in this discussion no one had mentioned the word "sunlight," and sunlight played a part by no means second to that of fresh air.

Dr. A. R. PARSONS agreed that as an indication of improvement a gain in weight was *per se* of very little value and at Newcastle hospital they found that the very worst cases often gained greatly in weight. With regard to the tuberculin treatment which had been referred to he did not personally hope for very much from it.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 6th, Dr. Duncan Burgess being in the chair.—Dr. J. W. Martin showed a specimen of Pyosalpinx and read notes of a case of Membranous Dysmenorrhœa associated with Cystic Ovaries and Retroversion of the Uterus. The ovaries were removed and the uterus was fastened by the pedicle of the left broad ligament into the lower portion of the abdominal wound.—Mr. R. J. Pye-Smith showed: 1. A case of Bilateral Coxa Vara in a boy, aged four years, which he had shown in October, 1899. There was marked improvement in gait and in abduction of the thighs. The chief treatment had been passive movements with short periods of recumbency and exercises. 2. A case of Laparo-pylephleb-anastomosis in a girl, aged 19 years, which he had shown in March last. Since then the ascites had entirely disappeared and the general health was good. It was now 13 months since the operation. 3. A case of Regeneration of the Tibia in a girl, aged nine years, after removal of the entire diaphysis for acute infective periostitis and osteomyelitis. The operation was performed in May last on the sixth day of the disease when the shaft of the bone was found to be bathed in pus. The wound was kept open for 10 days and was then closed. A skiagram showed the presence of a good new bone and there was no noticeable deformity, the ankle and the knee were freely moveable, and locomotion was good, though at present the child was wearing an iron support. 4. A case of Moveable Knee-joint after complete Arthrectomy for Tuberculous Disease in a girl, aged seven years. The synovial membrane and semilunar cartilages had been removed by Kocher's method in February last. There was but little deformity and the movements of the joints were almost perfect.—Dr. A. W. Cuff showed a case of Congenital Elephantiasis.—Dr. Arthur Hall showed a case of Lymphatic Leukæmia of 10 months' duration in an elderly man.—Dr. Hall also alluded briefly to two unusual cases of Status Epilepticus which had come under his notice in the Sheffield Royal Hospital during the previous week. In one patient, a middle-aged woman, who had never had a fit of any kind before and who was an in-patient for some gastric trouble, the fits succeeded each other with great rapidity and the patient died within three days. At the necropsy nothing was found in any organ to account for the fits. In the second case, that of a middle-aged man, the patient was found unconscious in the street and after admission to the hospital he had a series of epileptic fits following each other at short intervals for the next 24 hours. He became rather dazed for a day or two and afterwards completely recovered. In this case the patient had never had a fit before.—Mr. S. Snell exhibited the following: 1. A girl, aged 13 years, with Chancre on the Inner Surface of the Upper Eyelid. 2 A case of Rupture of the Choroid. 3. A case of Foreign Body (a piece of steel) embedded in the Retina. The date of the injury was in April last. The eye still retained good sight. 4 A case of Recovery from Sympathetic Ophthalmitis in a boy, aged 10 years. The exciting eye retained fair vision and in the sympathising eye after three recurrences vision was normal. 5. A case of Cellulitis of the Orbit in a girl, aged nine years. It occurred after a blow nine days previous to admission to hospital. Two days later, on making an incision to evacuate the pus, a small sequestrum was removed. Recovery was rapid and complete.—Mr. Snell also exhibited a large number of lantern slides of photographs of ophthalmic cases. He arranged them as far as possible in groups. Among them was a case of Double Anophthalmos, and he exhibited with this four other cases of Anophthalmos associated with Congenital Cyst in the Eyelids; there were three instances of Traumatic Enophthalmos. Various photographs illustrating causes producing protrusion of the eye were shown. One case was especially interesting as, in consequence of a fall downstairs, injury had been inflicted on the left fronto-temporal region causing apparently a fracture involving both orbits. The left optic nerve was so injured that complete blindness had resulted, and in the right eye there had been orbital aneurysm and the common carotid artery had been tied. In connexion with this case photographs were shown of injuries to the anterior part of the head from cases under the care of Mr. Snell in which blindness had been occasioned through the fracture involving the optic foramen. Mr. Snell mentioned that he had recorded in the Transactions of the Ophthalmological Society of the United Kingdom 18 instances of this sort which had come under his observation, but he had had five additional cases recently.

MIDLAND MEDICAL SOCIETY. — The second ordinary meeting of this society was held on Nov. 28th, at the Birmingham Medical Institute, Mr. Jordan Lloyd, the President, being in the chair.—Mr. J. G. Emanuel was elected a member of the society.—Mr. W. F. Haslam showed a woman, aged 46 years, suffering from Charcot's Disease. She had always had good health except for the fact that for the last five or six years she had had pains in both legs at irregular intervals. Ten months ago she twisted her right knee in getting into a cart, but she was able to go on with her work on that day. On the following day the knee was greatly swelled but there was very little pain. She kept about for two weeks, but then, owing to the weakness of her knee, she rested in bed for three weeks. The swelling disappeared to a great extent, but she could not trust herself to bear much weight on the knee, as it felt as if it would give way. Her condition on admission was as follows. She walked with difficulty, owing to the weakness of the right knee, but there was very little pain in it. This knee was two and a half inches more in circumference than the sound one. There was swelling of the synovial membrane, but very little fluid was present. The

temperature of the knee was increased. Flexion was very limited, owing to locking of the bones, but the joint otherwise was very loose and there was considerable hyperextension and lateral movement. There was slight thickening about the lower end of the femur. The patient could stand with her eyes shut. There were no gastric crises. Tactile and heat and cold sensations were normal and the pupils reacted to light and accommodation. The patient had no trouble with her bladder or rectum. The knee-jerk on the left was absent. There were shooting pains in the l gs at times. The x rays showed (1) very marked displacement of the tibia forwards and outwards, (2) slight thickening of the lower end of the femur, and (3) considerable erosion of the condyles of the femur and some erosion of the head of the tibia.—Dr. A. S. Underhill showed a Uterus with a Lacerated Cervix and Vagina. The patient was a multipara, aged 34 years. On Oct. 4th, 1900, being in labour, she sent for a midwife. In about seven hours after much difficulty the head and shoulders were born, but as delivery could not be completed a medical man was sent for who used some traction and, not feeling certain as to the condition, advised her removal to the Guest Hospital, Dudley. On admission the head and thorax were protruding from the vulva, and the upper cervical and middorsal vertebræ were separated so that the parts were only held together by skin. The vagina was completely blocked by a large fœtal abdomen palpably full of cysts. Embryotomy was completed by emptying several cysts. No force was used and the fœtus was easily expelled. The placenta came away directly afterwards. Hæmorrhage was slight and the uterus contracted firmly. A full dose of ergot was given and the patient was put back to bed. Four hours afterwards the house surgeon found her blanched, with a feeble, running pulse, restless, and only partially conscious. There was very little bleeding externally. Her abdomen now contained two swellings, the well-defined, firmly contracted uterus, and by its side a deep-seated but less distinct swelling, which was crepitant on palpation, reaching well above the umbilicus. She died shortly after in a state of collapse. Post-mortem examination showed a deep laceration through the whole thickness of the cervix and the adjacent wall of the vagina. The peritoneal cavity was not opened, but the peritoneum was stripped from the posterior wall of the abdomen to the left kidney, forming a large cavity filled with blood-clot and causing the second swelling noticed before death. A fairly large vessel was found in the lacerated cervix, which had evidently been bleeding, and caused the stripping up of the peritoneum and the consequent death from hæmorrhage.—Dr. Underhill also showed a specimen of Double Hydronephrosis with Sacculated Ureters, a large Thickened Bladder, and a Stricture close to the Membranous Portion of the Urethra. It was taken from a fœtus born at full term but dead. There were other abnormalities about the fœtus: a double harelip, cleft-palate, an inter-ventricular foramen, a supernumerary finger on each hand, and a supernumerary toe on each foot.—Mr. William Thomas showed specimens of the Clip Sutures advocated by Dr. Paul Michel.—Mr. G. Heaton read a paper on the Prognosis and Treatment of Hernia in Childhood.

GLASGOW SOUTHERN MEDICAL SOCIETY.—An extraordinary meeting of this society was held on Dec. 14th, Dr. William Watson, the President, being in the chair. Owing to the crowded attendance through the importance of the subject—Consideration of the Action of the General Medical Council in their Recent Decision respecting the Sale of Drugs and Poisons by Unqualified Drug Assistants—it was found necessary to leave the usual meeting-place and to secure a larger hall.—The President, in introducing the business, explained the reason of their special meeting and drew attention to the various points in the trial of the Airdrie practitioner before the General Medical Council. He asked for an expression of opinion by those present on the very serious issues involved.—An interesting discussion followed, in which the feeling was expressed that a very serious hardship would fall to the lot of general practitioners should the decision of the General Medical Council be maintained. In the opinion of some the General Medical Council had no *locus standi* in the question at issue, inasmuch as there had been no breach of the Pharmacy Act, and in their opinion the offence with which the practitioner had been charged could not by any reason be considered under the category of "infamous conduct in any professional respect" whatever. The open and continued hostility of the Pharmaceutical Society against the general medical practitioner was bitterly commented on by various speakers. It was common knowledge that chemists and druggists themselves were guilty of the same offence, for they habitually employed unqualified assistants who dispensed and sold drugs and poisons. The Pharmaceutical Society, it was held, should see that those whom they represented kept their own houses in order before interfering with the general practitioner. Various suggestions were made in the course of the discussion as to the best methods of conserving the interests of medical men. A motion was proposed that this could best be attained at the present juncture by the formation of a Medical Defence Union, but owing to the lateness of the hour and the desire for further discussion the meeting was adjourned until an early date.

LIVERPOOL MEDICAL INSTITUTION.—The second meeting of the Pathological and Microscopical section of this society was held in the theatre on Dec. 13th, Dr. J. H. Abram being in the chair.—Dr. W. Alexander and Mr. J. E. Dimond showed a Cervical Rib removed by Operation, Scirrhus of Mamma, and a Malignant Uterus.—Mr. Douglas Crawford showed a specimen of Multiple Sarcomata from a female, aged 30 years. Growths were present in the upper end of the right humerus and the right half of the lower jaw. The upper third of the humerus and the right half of the mandible were removed and there was no recurrence six months later. The growths were both of the spindle-celled variety.—Dr. F. H. Barendt showed a section of Ephelis *ab igne* with pigment cells in the derma, also pigmented skin due to arsenicated beer, the pigment being in the deeper stratum of the Malpighian layer.—Mr. F. T. Paul showed an Adenoma of the Kidney which he had removed during life; also a Vermiform Appendix very much enlarged.—Dr. R. J. M. Buchanan showed Sections of a small Adenoma of the Kidney discovered post mortem in a patient who had died from Scirrhous Carcinoma of the Pylorus.—Mr. G. P. Newbolt showed a Testis which he had removed with a Cyst which had totally destroyed the Epididymis. The cyst had a thick wall and contained straw-coloured fluid. There was also a hydrocele of the tunica vaginalis.—Dr. W. Blair Bell showed a specimen of Carcinoma which he had removed from a male breast.—The specimens were discussed by Dr. Abram, Mr. Paul, Mr. Newbolt, and Mr. K. W. Monsarrat.—Dr. W. B. Warrington and Dr. J. E. Dutton read a note on the Course of the Optic Tracts studied from a case of Unilateral Optic Atrophy. The note was illustrated by numerous microscopic sections, drawings, and lantern slides.—A discussion followed in which Dr. Abram, Dr. A. S. F. Grünbaum, and Dr. John Hay took part, and Dr. Warrington replied.

BOURNEMOUTH MEDICAL SOCIETY.—A special meeting of this society was held on Dec. 14th to consider a report from the committee on the possibility of providing better accommodation for the society and its library. The report, which had been printed and circulated, was taken as read. After some discussion it was adopted with only one dissentient.—Dr. F. C Bottomley read a paper on Some Sensory Affections of the Upper Extremity. He said that when working in the out-patient room of a London hospital he was struck by the number of patients complaining of one or more of the following symptoms affecting the arms—viz., pain, loss of power, numbness, tingling or coldness. He had made brief notes of 27 such cases. He gave details of these, from which it appeared that the majority were women, the average age being 44 years. Both arms were affected in 10 patients, the left arm alone in nine, and the right alone in eight. The duration of the symptoms varied from a few weeks to months. He considered whether there was any lesion in the arm to account for the symptoms, such as neuritis, or whether the affection was functional or hysterical or caused by overwork or strain or whether the pain was a referred pain or due to some disturbance of the circulation in the limb such as a vaso-constriction. Having discussed each of these possible explanations he thought that the symptoms were entirely subjective and that they were referred from some other part in the same way as pain from a decayed tooth is frequently referred to the temple. He gave reasons in support of this view such as the referred pain and other sensations due to flatulence or indigestion.—Dr. A. Kinsey-Morgan, sen., read a paper on the Modern Treatment of Phthisis.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 5th.—Mr. R. C. Chicken read a paper on the By-ways of Appendicitis. Dealing first with the symptoms of appendicitis, he affirmed that they were very illusive; all might be present and yet no appendicitis be found. He cited, as examples which had been known to simulate the condition, typhoid fever, subdiaphragmatic abscess, psoas abscess, acute intestinal obstruction, tumours in connexion with uterine appendages, and other pelvic tumours. The actual condition could only be cleared up by laparotomy. He then discussed the points for incision, pointing out that the painful spot was only valuable as a diagnostic sign before suppuration, and only rarely should the top of the incision be above a line drawn from the umbilicus to the superior iliac spine, extending from the edge of the rectus outwards. Specimens illustrating his paper were shown: (1) Excised Sloughing Cæcum; (2) Malignant Stricture of the Sigmoid Flexure; (3) Malignant Stricture of the Hepatic Flexure of the Colon; and (4) Tuberculous Tumour of the Cæcum, simulating appendicitis, and enlarged mesenteric glands. The second and third specimens exemplified the fact that stricture of the intestine might exist in a chronic form without evidence of obstruction but only of constipation. The lumen in each case was of the size of a No. 16 catheter.—Dr. H. Handford showed a microscopic section of the Thyroid Gland in which no gland epithelium was left. The specimen was from a man who was the subject of myxœdema and who was shown to the society in February, 1899.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held in University College, Bristol, on Dec. 12th, Dr. D. S. Davies, the President, being in the chair.—It was proposed by the President, seconded by Dr. B. M. H. Rogers, and carried:—

That the cordial thanks of the society be accorded to Mr. Paul Bush for the most interesting series of lantern slides that he showed at the close of the last meeting, illustrating hospital and other scenes he had taken during the Boer war.

—Mr. A. W. Prichard read notes on a curious case of Hypertrophy of the Hand, the patient being shown as well as skiagrams and photographs.—Dr. J. Michell Clarke and Mr. W. Roger Williams discussed the paper.—Dr. Michell Clarke showed a patient with Muscular Atrophy.—Dr. T. Fisher showed a patient with Patent Ductus Arteriosus.—Dr. Clarke and Dr. E. H. E. Stack remarked on the case.—Dr. J. O. Symes showed a microscopic specimen of Leukæmic Blood.—Dr. A. J. Harrison and Mr. Roger Williams commented on the case.—Mr. Roger Williams read a paper on Medical Science in the Nineteenth Century.—Dr. J. Lacey Firth read notes on a case of Bilocular Hydrocele.—Mr. Munro Smith and Mr. J. Paul Bush spoke on the condition.

SOUTHPORT MEDICAL SOCIETY.—The second meeting of the present session was held on Nov. 14th, Dr. R. Harris being in the chair.—Four new members were duly elected.—Mr. S. Backwell Fenn gave a short history of the case of Obliterative Endarteritis, probably syphilitic, shown at the last meeting.—Mr. F. J. Baildon showed a case of Disarticulation at the Shoulder-joint.—Dr. A. Storrs read a very interesting paper on Vaccination, which provoked an animated discussion, complaints as to the unreliability of glycerinated calf lymph being numerous.—The third meeting was held on Dec. 12th, Dr. Harris being in the chair.—Two new members were duly elected.—The President raised the question of the Infrequency of Medical Evidence at Inquests in the District, and after some discussion a deputation was unanimously appointed to wait upon the coroner and to lay the views of the profession before him.—Mr. G. Reinhardt Anderson read an able paper upon Appendicitis and showed specimens of diseased appendices removed by him. Rules for treatment and for operative interference were also laid down.—A discussion followed.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—A meeting of this society was held on Dec. 10th, Mr. H. E. Clark, the President, being in the chair.—Dr. James Carslaw showed (1) two patients who suffered respectively from Peripheral Neuritis as a Complication of Enteric Fever and (2) Hemiplegia occurring in the course of Enteric Fever but probably the Result of Mitral Stenosis.—Professor Robert Muir gave a microscopical and lantern demonstration of some of the Bacteriological Features of Bubonic Plague.—Dr. George T. Beatson showed a series of skiagrams of Tumours connected with Bone.—Dr. A. W. Russell showed a Uterus the seat of Multiple Myomata. There had been encysted hæmorrhage into the left ovary.—Dr. Munro Kerr showed as a fresh specimen the Lungs and Kidneys from a case in which Embolism of the Pulmonary Artery had occurred 14 days after labour.

ROCHDALE AND DISTRICT MEDICAL SOCIETY.—At a meeting of this society held on Dec. 6th Mr. G. W. Malim read a paper on Pernicious Anæmia and mentioned that he had recently had three cases in three contiguous houses. He supported the theory that the excessive destruction of coloured corpuscles which had been shown to occur was due to the absorption of a poison by the gastro-intestinal tract. He also gave some useful hints on treatment, especially as regards diet.—Mr. W. Pooley mentioned a case which had occurred in his practice. A woman died from pernicious anæmia and shortly afterwards her husband died from the same disease.—Dr. W. E. Jameson, Dr. D. Richmond, Mr. J. Chadwick, Mr. W. Stanwell, Dr. W. J. Kerr, and Dr. A. Wallace also took part in the discussion which followed the paper.

Reviews and Notices of Books.

Thomas Henry Huxley: a Sketch of his Life and Work. By P. CHALMERS MITCHELL, M.A. Oxon. New York and London: G. P. Putnam's Sons. 1900. Pp. ix.–297. Price 5*s*.

APPEARING so soon after the two large volumes of biography by Mr. L. Huxley, which we noticed in THE LANCET of Nov. 17th, there might at first sight seem to be no need of the present volume. Mr. Mitchell has, however, treated the subject-matter from an entirely different point of view, and instead of providing us with a record of daily life and occupations has picked out the main thread of Huxley's contributions to science and to contemporary thought for continuous presentment. From the few pages which make up this volume it is possible to get a clear grasp of the main achievements of a remarkable man, while the account is clothed only with just sufficient extrinsic matter to attract the attention and to explain the external circumstances which had influence upon his doings and writings. It is significant and not at all gratifying to find that Mr. Mitchell feels himself obliged—and we admit that he is obliged—to emphasise more than once the position of Huxley as a great original explorer in the domain of comparative anatomy. Popular estimation of that eminent anatomist was well expressed to us once by a clergyman who inquired "Why is he called Professor Huxley? What is he professor of?" The public do not read the Philosophical Transactions or the Proceedings of the Zoological Society; but they do read the daily papers and are thus apt to gauge the eminence of a man by the number of times he appears therein. It is hardly too much to say that the professor's extensive reputation was nearly entirely due to his advocacy of, or attacks upon, commonplace matters understanded of the people. He unfortunately bulks much more largely as an objector to the Gadarene swine and as the inventor of the phrase "Corybantic Christianity" than as the exponent of the vertebrate skull and as the comparer of the two-layered condition of the embryos of the higher animals to the adult hydrozoon. It is urged that Huxley advantaged science greatly by his continual presence in the arena before the general public, but we are not at all so convinced of this. For the possibilities which he showed have led men of vastly inferior achievements, but gifted in the use of the pen or the tongue, to pose as exponents where they should be humble learners.

Mr. Mitchell justly points out that one marked feature of the contributions of Huxley to zoological science is their extreme exactness; there is but little to correct

in his statements; and when it is reflected how poor were the instruments and methods of displaying minute structure at the time when he was chiefly engaged in work the wonder at these achievements grows. To examine a medusa through a microscope "lashed to the mizen mast" and to deduce therefrom truly epoch-making generalisations is a feat which requires no disputes with Owens and Wilberforces to enhance it. Mr. Mitchell devotes a page or two to the important subject of geographical distribution. It is interesting to note that current opinion at the present moment is perhaps rather more strongly in favour of the views expressed by Huxley in his celebrated paper upon the anatomy and range of the Gallinaceous birds than it was at the time. "There has been recently," writes Mr. Mitchell, "a recurrence to Huxley's suggested union of South America and Australia." We are not, however, quite in accord with Mr. Mitchell in his advocacy of this view so far as concerns details. The important fact of the occurrence of a diprotodont marsupial, first named by Mr. R. Tomes "hyracodon," in South America, would rather be interpreted on our view by the theory that the two divisions of the marsupials had already arisen in Europe and North America before the spread of the race to South America on the one hand and to Australia on the other. Moreover, the connexion of South America with Australia was, we are disposed to think, indirect and through New Zealand, which was itself connected with Queensland. This view of the matter seems to be supported by certain freshwater fishes, and above all by the range of one or two genera of earthworms, creatures impatient of salt water and thus dependent upon a land connexion for possibilities of migration.

This, however, is not the place where these matters can be debated at length. It remains only to say that the writing of this appreciation of Huxley has fallen into precisely the right kind of hands; for Mr. Mitchell is competent by his own investigations into comparative anatomy to treat with a proper sense of proportion the vast amount of discovery connected with the name of Huxley, while he has the requisite literary skill to present his statement in such a way as to appeal to the reader.

Handbook of Practical Botany for the Botanical Laboratory and Private Student. By Dr. E. STRASBURGER, Professor of Botany in the University of Bonn. Translated and Edited from the German with many additional notes by W. HILLHOUSE, M.A., F.L.S., Professor of Botany and Vegetable Physiology in the University of Birmingham. Fifth edition. Rewritten and enlarged. London: Swan Sonnenschein and Co., Limited. 1900. Pp. xxxii.–519. Price 10*s.* 6*d.*

THE fact that this work has reached a fifth edition must be a source of gratification to all concerned. As is well known the volume before us is a translation of Dr. Strasburger's "Das Botanische Praktikum," which is one of the best handbooks for certain branches of practical botany—namely, anatomy and histology—which we possess. From the preface it may be gathered that this edition has been practically rewritten, and also that a certain number of new figures have been added.

It is a matter of some little difficulty to review a book which has been used for a considerable time and hence is so well known. There are, however, a few points to which attention may be drawn. In Chapter XXVII. the fertilisation of *Picea* is described and also the behaviour of the nucleus of the egg after fertilisation has been effected; on page 376 it may be read that "The next stages take the embryo-nucleus into the end of the oöspore remote from the neck, where, by repeated bipartition, it forms four nuclei lying in the same plane." Judging from the most recent research into the fertilisation of this class of plants, this statement is not quite correct. For instance, V. H. Blackman makes the following remarks. "It is clear from my observations that though a definite fertilised nucleus hardly exists as such, the first segmentation spindle appears in the position formerly occupied by the female nucleus. The two daughter nuclei themselves also undergo division before they begin to wander down to the base of the egg." Dixon also ascertained that the fertilised nucleus divided in the centre of the oöspore.

As regards another point, we should like to suggest that Professor Hillhouse would have done well to have added an alternative plant for the study of fertilisation in sea-weeds. The types taken are *Fucus platycarpus* and *F. vesiculosus*. Although the fertilisation in these two plants is extremely interesting, still there is another in which the process is still more so. We refer to *Halidrys*. Fertilisation in this plant is very easily observed, and as to its interest the following quotation from Farmer and Williams will answer. The male elements, as is well known, attach themselves to the egg and cause it to rotate by the movements of their cilia. "Suddenly the antherozoids are seen to leave the egg like a crowd of startled birds or else they become quiescent, and these phenomena are immediately followed by a great change in the egg itself, which becomes warty and covered with conical projections. ..... We consider it as certain that the flight of the supernumerary antherozoids marks the moment of actual fertilisation and it seems only possible to interpret the events outside the egg as the result of an excretion from it of some substance which not only exerts on the surrounding antherozoids a negative chemiotactic but also a directly injurious effect, for a number of dead sperms may be seen around the fertilised egg."

In the portions dealing with the fertilisation of angiosperms we do not notice any mention made regarding the recent discoveries of the triple fusion of nuclei, the two polar with the second generative nucleus of the pollen-tube, to form the endosperm (or definitive) nucleus of the embryo sac. It is to be borne in mind, however, that in the types described this phenomenon has not yet been observed excepting in the case of *Monotropa*. Although these discoveries were not made till after the publication of the third edition of Dr. Strasburger's "Das Botanische Praktikum," of which full use has been made in this edition of the translation, still the facts are of sufficient importance to warrant mention. These remarks do not apply to the case of *Monotropa*, for it is only quite recently—indeed, within the last month or two—that the so-called "double fertilisation" has been observed.

Excepting the above points the book is extremely good. The work is so carefully graduated and the directions as to technique are so numerous and practical that a beginner in this branch of knowledge need find but very few difficulties in this all-important side of botany. The volume is rendered more valuable by the addition of appendices which deal with English and metric weights and measures, plants and materials used for study, the preparation of, and methods of using, reagents, &c., mentioned in the text, and finally some general notes on methods and selected reagents.

The Great Boer War. By A. CONAN DOYLE. With Maps. London: Smith, Elder, and Co. 1900. Pp. 552, including Index. Price 7*s.* 6*d.*

THIS is a big book and requires careful reading, and, what is more, it well merits it. The author, besides having a natural and graphic style of writing which makes perusal pleasant, has approached his subject with a sense of responsibility and with an evident desire to weigh thoughtfully and impartially all he has to say. It is possible, he states with modest frankness, that a fuller knowledge may give an entirely different meaning to some of the events of the Boer war. "The occasional judgments and criticisms

on which I have ventured may be founded upon error, but at least they are made without either fear or favour."

The book begins with a brief sketch of the history of the Boers and is followed by chapters descriptive of the cause of quarrel and negotiations, carrying us on to the eve of war and the battle of Talana Hill, which is characterised by the author as "a tactical victory but a strategical defeat." After that the volume is almost entirely one of military history—battles, sieges, and engagements of one sort and another—with a final chapter on some of the military lessons of the war, into which, as appertaining more especially to military critics and army reformers, we need not enter. The historical details descriptive of the state of affairs antecedent to our defeat at Majuba Hill and from that onwards until the present campaign began in earnest are lucidly and, as it seems to us, fairly set forth. It will be seen that this work has been brought out before the war has ended; for, in the face of recent occurrences and despite what Lord Roberts has told us, it cannot be said to have terminated yet.

Readers of any history of the Boer war will turn with much curiosity and interest to those sections which deal with the battles of Lombard's Kop and Nicholson's Nek, Lord Methuen's operations on the Modder, the battle of Colenso, the affair at Spion Kop, the siege of Ladysmith and its final relief, and with the advance and successful strategical operations of Lord Roberts's army. They will not be disappointed with the graphic description which the medical novelist gives of these stirring events. A great deal has been said about the want of strategical foresight and ability which characterised the earlier phases of the war, but many judgments may have to be recast and possibly, as a matter of justice, withdrawn when all is known. Dr. Conan Doyle makes it clear to us that the Boer leaders missed their opportunity by not having concentrated their efforts at the beginning of the war on the capture of the country in the direction of Durban. The fighting in Natal and the various sieges had the effect of frustrating any scheme of the kind later. In his chapters on "The Halt at Bloemfontein" and "The March on Pretoria," and in his final chapter summarising some of the military lessons of the war, the author has a good deal to say about medical matters and the epidemic outbreak of enteric fever, which, if not of an exhaustive character, is interesting and conceived in a very fair and just spirit. Probably Dr. Conan Doyle recognised that this particular subject was altogether too special to be adequately discussed in a book of this kind and so did not attempt it. Our readers will have gathered from our remarks that "The Great Boer War" is, in our opinion, an interesting and eminently readable book.

We may add that the short sketches and descriptive touches of character of many of the generals and leaders in the war which are interspersed in the volume are excellently done. It should be mentioned that the volume is illustrated by some good maps, a reference to which is of much help to the reader.

BRISTOL HOSPITAL SUNDAY FUND.—At a meeting of the committee of the Bristol Hospital Sunday Fund held on Dec. 13th under the presidency of the Lord Mayor it was reported that on Hospital Sunday, Jan. 28th, 1900, collections were made in 223 places of worship, an increase of 40 as compared with the previous year. The amount received was £1383, or £125 less than in 1899 It was decided that in 1901 Jan 27th should be observed as Hospital Sunday.

THE CLIFTON CLUB.—The committee and members of the Clifton Club, Bristol, entertained Mr. J. Paul Bush at dinner on Dec. 13th. After dinner Mr. Bush gave a most interesting lecture on his experiences in South Africa, and his lantern slides illustrating scenes during the Boer War were much enjoyed by the company present.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on Dec. 13th, Sir WILLIAM MACCORMAC, Bart., K.C.V.O., the President, being in the chair.

The resignation of Mr. Edward Trimmer, M.A., the secretary was accepted. Mr. Trimmer's retirement will date from March, 1901, when he will have been connected with the College for 42 years. Mr. Sibert Cowell, the present assistant secretary, was appointed his successor.

The resolutions carried at the annual meeting of the Fellows and Members in November were read. In reply to the first resolution, which urged the Council to take steps to obtain representation for the Members, it was resolved to say:—

That the Council, having fully considered the resolution moved by Dr. Herbert Snow and seconded by Mr. Joseph Smith, and carried nem. con., are of opinion that it would be most undesirable to re-open the question of representation of the Members on the Council.

In reply to the second resolution, requesting the Council to take steps towards obtaining a Parliamentary inquiry into the working of the Medical Acts with a view to their amendment, it was resolved to say:—

That the mover, Mr. George Brown, and the seconder, Dr. Danford Thomas, of Resolution No. II. carried at the annual meeting of Fellows and Members be requested to furnish the Council with information as to the points in regard to which they are of opinion the Medical Acts require amendment.

With regard to the third resolution, which claimed for every Member the right to receive a copy of the annual report of the Council without application, it was resolved:—

That the annual report of the Council be sent only to those Fellows and Members who apply for it, but that to save unnecessary trouble to those who desire to receive the report regularly any Fellow or Member may, on request, have his name entered upon a standing list.

It was further resolved that the mover and seconder of the fourth resolution carried at the annual meeting of Fellows and Members be informed that the resolution had been laid before the Council. The Council also resolved to accede to the request expressed at the annual meeting, that the names of deceased Members who have died during the year should be recorded in the annual report, as in the case of the Fellows.

A report was presented from the Centenary Committee in connexion with the Guarantee Fund, by which it was shown that the cost of the centenary dinner with other expenses amounted to £798 and that £308 of this were received by the subscriptions from Fellows and Members for dinner tickets, and that the balance—namely, £490—was contributed by the guarantee fund of the members of the Council.

The SECRETARY reported the death of Professor Albert of Vienna, and of Professor Ollier of Lyons, honorary Fellows of the College, and the President was requested to address letters to the families of the two late honorary Fellows expressing the sympathy and the condolence of the Council.

The Council decided to renew for another year the recognition of Cooke's School of Anatomy, Physiology, and Operative Surgery for the performance of the extra six months' dissections required for the primary Fellowship examination.

The PRESIDENT reported that Mr. John Langton had delivered the Bradshaw Lecture on Dec. 12th and that the subject of the lecture was "The Association of Inguinal Hernia with the Descent of the Testis."—The best thanks of the Council were given to Mr. Langton for his lecture and he was requested to publish it.

The PRESIDENT informed the Council that property extending from Serle-street up to Nos. 35 and 36, Lincoln's-inn-fields had been acquired by the Crown and that it was proposed to erect on this site a building projecting beyond the general building line to within four feet of the pavement.—The President was requested to write to the First Commissioner of Works setting forth the objections to the plan and asking him to reconsider the matter.

Mrs. Henry Lee presented to the College a bust of her husband, the late Mr. Henry Lee, by Mr. Thomas Brock, R.A.—The gift was accepted by the Council with thanks.

THE LANCET.

LONDON: SATURDAY, DECEMBER 22, 1900.

IN no one disease is prognosis more difficult to determine than in pulmonary tuberculosis. Dr. ROBERT MAGUIRE, in the Harveian Lectures before the Harveian Society of London which we recently published, gave a thoughtful disquisition on the several points that have to be considered by the physician before a decision can be arrived at. He pointed out that a difficulty besets us even before we can approach the subject proper, and that is, to define what we understand by prognosis in each of the so-called "stages" of the disease. In the first stage, that of invasion, we wish to attain to complete cure of the patient, an absolute arrest of the bacillary action, and a return of the lung to an entirely normal condition; though, of course, the same tendency which led to the disease previously, being a tendency innate in the subject, will still exist. That tendency having shown itself, perhaps being recognised for the first time on the outbreak of the lung trouble, may be combated by suitable means, but for a long period must remain with the patient. When the disease has reached the second stage—according to the lecturer, "that of progress of the bacillary infection," or as it is more generally known, the "stage of softening"—arrest of the condition may still be hoped for, but if accomplished it will only be after a certain amount of damage to the lung tissue has been done—damage which is evidenced afterwards by cicatricial tissue and pleural adhesions. Yet this damage may eventually give the patient no trouble if only the tendency to further attacks be kept well under control. In the third stage we find total destruction of lung tissue, the result, as Dr. MAGUIRE says, of bacillary action, and he maintains that the most favourable prognosis which can be made in the third stage must be vastly less favourable than that of either of the two preceding stages. That a patient in the third stage of pulmonary tuberculosis is open to great danger of fresh activity cannot be doubted, but it is common medical experience that a patient who has reached the third stage has more chances of prolonged life than one in the first stage, and consequently Dr. MAGUIRE'S general statement must be taken with reserve. Dr. MAGUIRE, however, sets forth very clearly the grounds upon which he founds a prognosis and shows that he does not make his deductions without examining his facts. He takes into consideration the stage of the disease, but he also lays stress on the antecedent conditions, the nature of the physical signs, the localisation of the physical signs, and the significance of individual symptoms. And he points out that if there are certain cases in which the physician does not hesitate to give an opinion, there are others which present the greatest difficulties. Dr. MAGUIRE draws particular attention to one class of cases in which the constitutional symptoms are out of all proportion greater than the physical signs. He thinks that under such circumstances an unfavourable prognosis must be given, and he suggests the term "latent pulmonary tuberculosis" for this variety of the disease. We think the term a good and explicit one, for, as he remarks, the tuberculosis itself is active enough but its pulmonary characteristic is latent. And we agree that the prognosis in such cases is serious.

Turning now to Dr. MAGUIRE'S remarks on treatment we must speak with considerable reserve. The experiments which he has described are novel and interesting, and were carried out with great care, while before attempting to treat patients he experimented upon himself. Some of his experiences were apparently the reverse of pleasant. He adopted the method of injecting into the veins a solution of formic aldehyde of the strength of 1 in 2000, which had been proved to be a most efficient germicide. Dr. MAGUIRE was certainly bold in his resolution to employ such a medicament, but after proving on himself the strength that might be administered without danger he was justified in prescribing it for the relief of patients suffering from pulmonary tuberculosis. Hitherto the use of germicides in this disease, given with the idea of directly attacking the bacillus of tuberculosis in the lung, has not met with great success; indeed, the energies of physicians have been directed rather in the direction of starving out the organisms, so to speak, by rendering the tissues unsuitable for their growth, and the favourable results obtained by this means have been undoubted. Naturally, if a means can be devised by which the bacilli can also be destroyed by the use of drugs which at the same time do no harm to the host, a great advance has been made. Whether Dr. MAGUIRE has succeeded in solving the problem remains to be proved. He did not give details of the cases treated by his method but merely the summary of the results. He stated that "almost every case has shown some improvement." Before expressing any definite opinion on the subject we think it well that some time should elapse so that those cases already injected may be watched, and also to enable a larger number of cases to be observed. No bad results seem to have followed the injections. We demur, however, to the statement that "no fear need be entertained from the entrance of a small amount of air into the veins. This is an old-fashioned surgical fallacy." A "small amount of air" in the vein may do no harm, but as this fortunate result depends upon what is meant by a "small amount" it is better that no air should be admitted to the circulation.

We publish this week a lecture delivered at the Brompton Hospital for Consumption and Diseases of the Chest by Dr. ARTHUR LATHAM, physician to the hospital, the subject of which is the Tuberculosis of Early Childhood. Dr. LATHAM confesses that our knowledge of the etiology of pulmonary tuberculosis is not so definite as we could wish and forms an insufficient basis for the dogmatic assertions of the present day. He adheres to the old-established belief that predisposition—the hereditary and acquired character of the soil—is a most important factor. The discovery of the tubercle bacillus promised to deal a death-blow at the hereditary character of pulmonary tuberculosis; as investigations proceeded, however, it was speedily found that the bacillus

itself did not explain the entire etiology and that a second etiological factor existed, the exact nature of which has not been established, and until this has been accomplished we agree with Dr. LATHAM that the hereditary factor cannot be eliminated. He further expresses his belief in the important rôle played in infantile tuberculosis by the milk-supply. This was fully proved by the investigations conducted under the instructions of the Royal Commission on Tuberculosis. Arguing from a pathological point of view Dr. LATHAM holds that in adults, in whom in the majority of cases an air infection has to be dealt with, the lungs are affected before, and more extensively than, the bronchial glands; consequently if in children the primary affection is also through the air-supply a similar condition of things should be found, whereas the opposite condition exists. That is to say, that in young children tuberculous disease of the lungs does not often occur unless the pathogenic bacilli first establish a hold on and produce more or less advanced pathological changes in, the bronchial glands. This is an interesting point and one that might have an important bearing upon treatment.

The observations of Dr. MAGUIRE and Dr. LATHAM show that investigations of pulmonary tuberculosis from every point of view are constantly being made and that a continuous fight against the disease is being waged. The British Congress on Tuberculosis which is to be held in London next year will doubtless stimulate many others to bring before the profession the results of their studies and investigations. The new century could not, from a medical point of view, open better than by registering a decided advance in our knowledge of the nature and mode of prevention of one of the most prevalent and fatal of diseases.

THE circumstances which led to the founding of the Birmingham Consultative Medical and Surgical Institution are well known to our readers, for we have explained at some length the principles upon which the institution was established, and have expressed at the same time our entire disapproval of them. The main reason asserted for its proposed existence was that there appeared to be no proper medical provision for a certain class of the population in Birmingham whose financial position, while it placed them above taking advantage of charitable institutions, was yet insufficient to allow them to pay the full fees of consulting physicians and surgeons. It was therefore suggested that an institution should be formed where the advice of "consultants" could be obtained for a fee of half a guinea; and advertisements were issued for a "consulting physician" who for a salary of £500 a year was to give his whole time to the work. The fees, of course, were to go into the exchequer of the institution. As soon as the proposal was publicly mooted a meeting of members of the medical profession in Birmingham was convened by Dr. R. SAUNDBY when resolutions condemning the project were unanimously passed. At the same time it was intimated that with the exception of a few of the senior consultants, who for obvious and proper reasons stood aside, the physicians and surgeons of the city were willing to see patients for a fee of half a guinea provided that satisfactory evidence was adduced that these patients were unable to pay the full fee. This generous offer was, however, totally disregarded, and Dr. HENRY WARD IRVINE was appointed consulting physician to the institution.

At the recent meeting of the General Medical Council Dr. IRVINE was summoned to answer the charge "that he accepted the office of consulting physician to the Consultative Medical and Surgical Institution, Birmingham, at a salary, and approved or acquiesced in the extensive advertisements issued by that institution by posters exhibited in the various manufactories, trading establishments, and mercantile offices of the city, by advertisements in the daily press, and by lithographed letters and printed pamphlets, widely circulated, setting forth conspicuously his name and medical qualifications, and referring to his special ability as a general consulting practitioner, and soliciting and inviting the public to consult him at a reduced fee." The "complainant" nominally was Dr. SAUNDBY, but really the medical staffs of the Queen's Hospital and the General Hospital, Birmingham, of whom Dr. SAUNDBY was the mouthpiece. The case was conducted on behalf of the medical staffs by the Medical Defence Union, whose council once again demonstrated the excellent service that they are prepared to render not only to their own members but, when the occasion warrants it, to the medical profession generally. Dr. A. G. BATEMAN, the general secretary to the Union, conducted the case on behalf of his council, while Dr. IRVINE attended with Mr. FREEMAN, Q.C. Dr. BATEMAN pointed out the extent to which the advertisements had been circulated, and produced a copy of a broadsheet, containing Dr. IRVINE'S name and qualifications, the hours of consultation, and fees, which had been distributed to restaurants, mercantile offices, factories, and board schools. He urged that there could be no question that Dr. IRVINE'S conduct was "infamous in a professional respect," and that the fact that this advertising was done under the ægis of an institution managed by laymen did not alter the gravity of the professional offence and could not be held to excuse or to palliate such conduct. Mr. FREEMAN argued that the institution had been set on foot by public-spirited citizens with no view whatever to their own profit. He called Mr. ARTHUR CHAMBERLAIN, who maintained that the institution was a philanthropic undertaking which the founders hoped would essentially become self-supporting, but that it could not be called a charity, because one of the objects which the management had in view was the preservation of the self-respect of persons who ought not to seek aid from a hospital but were yet in need of some higher advice than they would get from their "street doctor." This distinction between a "philanthropic" and "charitable" establishment we find it a little difficult to appreciate, and we most strongly protest against the use of the term "street doctor." Mr. ARTHUR CHAMBERLAIN evidently meant by this phrase to belittle the position and services of the Birmingham general practitioners, a course which will not commend itself to the public any more than it does to us. For the public knows well the sterling as well as generous nature of the work done by our profession, and may fail to see much philanthropy in the offer of the institution to do, through Dr. IRVINE'S single hands, what the genuine consultants of Birmingham are

willing to do for the same money but with more experience and more varied knowledge.

Dr. BATEMAN drew attention to the fact that there was no wage-limit specified and that a portion of the funds had been obtained as a "loan" from the Hospital Saturday Fund Committee of Birmingham, a charitable body. The main points, however, which Dr. BATEMAN tried to establish before the General Medical Council were that Dr. IRVINE was aware of the character of the advertisements and that he had a direct pecuniary advantage in the success of the institution. With regard to the first, Dr. IRVINE at first stated that he had never seen one of the objectionable placards, but in cross-examination admitted that there was one in the institution; and in reference to the second point Mr. WILLIAM COOK, the chairman of the Committee of the Hospital Saturday Fund of Birmingham, stated in his evidence that if Dr. IRVINE was found to be worth more than £500 a year and the committee had the funds to pay he "supposed the committee would like to see him properly paid." On a careful consideration of the evidence the General Medical Council came to the inevitable conclusion that the charge against Dr. IRVINE had been proved, but adjourned adjudication until the next session so that Dr. IRVINE could consider his position. This deliverance of the General Medical Council will commend itself to all members of the medical profession who have followed the case. Dr. IRVINE has undoubtedly sinned against the canons of medical etiquette. Now that the opinion of the supreme court of medical ethics has pronounced against him he will doubtless sever his connexion with an institution which, although apparently formed with very good intentions, was run on lines which cannot be approved by the medical profession. We entirely endorse the action taken by the General Medical Council and congratulate the council and officials of the Medical Defence Union on the fair, just, and open manner in which the case was conducted.

THE Christmas holidays are again upon us. The lapse of nearly 2000 years makes no difference in their interest or their significance to the great bulk of our race. The peace and goodwill promised in the dim past still recede into the indefinite future and the conflict of races shows little abatement. But still we believe the promise to hold good, even while science, as it progresses with long strides, deals roughly with the dogmas which have their centre in the event which christens our holiday. But still we keep our Christmastide, and, in spite of all that tends to spoil the simplicity of our belief, faith still survives and with it hope and charity. We suspend our business in wholesale fashion and we try, or profess to try, to suspend our uncharitableness. And if we are as a nation at war, as we shall be on next Christmas Day, the season will be a fitting one wherein to consider as a nation how to make the war, and make it quickly, a means of peace.

Let nobody say, therefore, that we have no longer a use for Christmas Day. A festival of charity, a date of general reconciliation, is more needed than ever, and we cannot begin the new century better than by carrying into it the Christmas spirit. It is hard for many of us while our sons and brothers are still at the front fighting for the maintenance of our rights and influence for good in the world to enter with spirit into the gaiety which we associate with the season. But the more we do so, the more complete will be the victory over the petty spite and misunderstanding of which for the moment we as a nation are the victims and the better will be our national health. He is a poor physician who does not at times recognise the moral side of human nature and the enormous influence which it exerts on human life both in its national and its individual form. Ours is a profession which has to aim at securing for every member of the community the healthy mind in the healthy body. The advance in civilisation only emphasises the necessity for recognising our double charge. What intelligent British practitioner does not know that for 12 or 15 months he has been dealing with human nature under conditions of depression and care which have complicated disease and antagonised the operation of his remedies. The nation has been rich, it has been able to eat and to drink to the full, but it has been restless, dissatisfied, and neurotic. The state of war is not normal to us as a nation, though we generally contrive by the blessing of Providence to come out of war, possibly after many blunders, on the winning side. Our great victories are those of peace, and peace is our greatest interest. We do well, then, to make much of Christmas, to refuse to believe that any brave men are our lasting enemies, and to cultivate the spirit of peace and goodwill. A little good statesmanship in our politicians and our soldiers may make the world in the coming century a very happy world for the subjects of the QUEEN.

Taking a more domestic view of Christmas holidays we find much to interest us as a profession. To no one more than to a medical man can the disposition to abolish for a season the cares of the poor appeal, for no one knows better than the medical man what the stress of poverty really means to our less fortunate brethren. A time when all are trying to do something to assuage the inequalities of circumstance is a time when in a sense the whole people become physicians.

> "All have to spare, none are too poor
> When want with winter comes.
> The loaf is never all your own,
> Then scatter out the crumbs.
> Soon winter falls upon your life,
> The day of reckoning comes.
> Against your sins, by high decree,
> Are weighed these scattered crumbs."

But we need to be on our guard against the evils of indiscriminate charity, and very specially against all encouragement of drunkenness. The words of Lord ROBERTS pleading for care lest we tempt our returning soldiers into vice are still ringing in the nation's ears. It is not too much to ask that whatever forms Christmas kindness to the poor may take it will not take the form of "treating." Coals, clothing, food, entertainment, and all forms of personal kindness must supersede this discredited custom. And the longer that charitable efforts are continued the better; it is a poor way of honouring Christmas to expend all our care for the poor in one day. We are on the eve of new efforts to abate the extreme poverty which discredits our civilisation, and the more personal consideration each one of us can give to the problem the better.

WE have received two small pamphlets, published by Messrs. John Bale, Sons, and Danielsson, Limited, Great

Titchfield-street, London, W. Their titles are, "Counsel for Young and Unmarried Men respecting Chastity," and "The Proper Discipline to be observed by Married People in regard to Conjugal Intercourse," and they are stated to be issued "on high medical authority and with episcopal sanction." Their object is sufficiently indicated by their titles. The medical authority concerned in the production dwells with suitable brevity upon the physiological aspects of the case and his observations are accurate and to the point. If we cannot speak as highly of the advice emanating from the "clerical" authority this is not because we do not see that a sincere attempt has been made to do good. But clerical admonitions would prove more impressive if they avoided the appearance of being founded upon an intimate acquaintance with what is right. Thinking men and women are not prone to adopt views the reasons for which they cannot follow, however sincerely those views may be urged upon them by teachers having a personal belief in their correctness. We have two or three general observations to submit upon the subject, and more than general observations we cannot make, for individual appetites so vary that we do not wish to be the medium for recording any hard-and-fast limits, even while we see the benefit that might accrue to some people from such guidance. In the unmarried, and especially in the young, continence is the noble aim. We do not dwell for the moment (though this aspect is vitally important) upon the narrower and more selfish view of the physical and moral evils which incontinence may produce: we rather assume the higher ground that a man who ruins, or helps to maintain the ruin of, a female is a sinner against the social law of love. Each young man should act as a trustee for the chastity of every woman and should account as a personal insult and degradation any suggestion to mar her highest development into the type of womanhood. This is the ideal attitude towards unchastity, whether it be assumed out of physiological knowledge, out of faith in the beneficent effect of a Divine will, or (best of all) out of a fortunate blend of both reasons. But incontinence besets the married as well as those to whom sexual gratification is morally forbidden. In married life, as members of our profession know too well, there frequently occurs a reversion to primitive customs. The wife is still too often considered to be largely a mode of sensual gratification to the man instead of a helpmate, entitled to equal respect of her feelings and sense of dignity. This is well known to the medical man, for it is part of the routine of his life to receive confidences of a perfectly intimate character. And his counsel, based upon knowledge that no general laws can be laid down, is always towards moderation. But we would suggest to the Church a reform of the Marriage Service, which in its present terms encourages the belief that marriage is largely a device for the multiplication of children and that the wife in this respect is to "obey" the demands of a husband, however insatiable. Any teaching which appears to support this view can only debase, rather than elevate, married life. The Law, following in the steps of the Church, gives a carnal interpretation of marriage, and treats the tie as mainly one of sensual meaning, and so the full dignity of conjugal union is missed. We need an equitable and righteous reform, possible only under fresher and purer conceptions, and a more elevated view accordingly of the married state—a state in which the intellectual, moral, social, and spiritual affinities between man and wife shall be cultivated and sought, in place of the more debasing notion which is too generally sanctioned by Church and Law, and which largely forms the predominating element in popular views. The Law by the growing recognition of the personal rights of the wife has shown that its purview of married life is becoming larger and more liberal. Medicine plays its part by inculcating moderation. There are ways in which the Church might help.

Annotations.

"Ne quid nimis."

LORD SALISBURY ON THE HOUSING OF THE POOR.

THE weighty words which Lord Salisbury has just pronounced on the housing of the poor will, we trust, be taken to heart throughout the land, but more especially by the new borough councils of the metropolis. We are glad to see that the anxieties caused by the war did not prevent the Premier from devoting some consideration to this most important social question. It is true that these questions are not disconnected, though at first sight they seem to be widely apart. A moment's thought, however, suffices to make it clear that it is not from the prosperous artisan class, but rather from among the unskilled labourers, that a considerable proportion of the rank and file of the army must be recruited. In the labour market the recruiting sergeant can scarcely compete with those who work nine hours a day for 9*d*. an hour. It is among men who, when in work, earn less than £1 a week that the inducement to enlist must be the strongest. But, on the other hand, if the members of this, the poorer, class are obliged on account of their poverty to huddle together in overcrowded, insanitary houses, their physical powers will be so reduced as to render them unfit for military service. The evil, however, has gone even beyond this point, for workers who are earning higher wages and are willing to pay considerable sums in rent often find it difficult to obtain decent houses, at least in London. Addressing the National Union of Conservative Associations on Dec. 18th, Lord Salisbury recommended his party to devote all their powers to get rid of what he described as a scandal to our civilisation, namely—"the suffering which many of the working-classes have to undergo in order to obtain even the most moderate, I might say the most pitiable, accommodation." He then insisted that this was the most urgent of all social questions and hinted that it was not to be settled by the hard and fast conditions of the market. On the contrary, Lord Salisbury reminded his audience that he had attempted to pass a Bill so that the site of Millbank Prison should be sold at its cost price and not at its market price on condition that it should be used only for the purpose of erecting habitations for the poor. It is not creditable to the House of Commons that it should have rejected this proposal though it had been adopted in the House of Lords. Perhaps now that the grievance is becoming more and more menacing there will be a better disposition shown, and some readiness will be displayed to forego the driving of hard bargains—the exacting of the uttermost penny when this can only be achieved by bringing about the degradation, physical and moral, of large sections of the population.

"FAITH-CURISTS" CONVICTED AND IMPRISONED.

THE United States have given birth to many strange sects who have endowed themselves with wonderful and eccentric names. As a rule, these little Bethels vegetate in comparative seclusion, so that perhaps the "Fire-Baptized Holiness Mission" is not altogether sorry at having acquired the publicity of cheap martyrdom. Self-advertisement has become a fine art in America, but we should think that the line might be drawn at manslaughter. Among the peculiarities of this peculiar sect with a peculiar name are their faith in mind cure and their total disbelief in medicine and medical men. Certainly a good deal may be said as to the influence of the mind over the body, but even this theory presupposes the existence of a mind to influence the body. It is doubtful, however, if anyone would venture to define what amount of mind force or will power an infant seven months old can be directed to exercise over himself. Edward Hlack was the name of the infant in question. According to the statement of his mother, he had been sickly from birth and he was ill when he was confided to the charge of Henry E. Sollenberger and Ezra Sheets, who are "faith-curists" of the "Beulah Orphanage" belonging to the "Fire-Baptized Holiness Mission." The child was first fed on sterilised milk and then on condensed milk, but in a few days he died. Summoned to appear before the court at Philadelphia on the charge of manslaughter, Sollenberger pleaded that he was taught by the Bible to leave all persons who were ill in the hands of the Supreme Being and that medicine was poison to the human system. He did not explain why he had not left the milk in the hands of the Supreme Being instead of having it sterilised, which was surely a medical precaution and quite as unnatural or artificial a process as the taking of medicine. The defendant, it appears, was born in Kansas and was by trade a carpenter, but he declared that he was "controlled by the Spirit" which "called" him to Philadelphia and "directed" his actions. Neither the judge nor apparently anyone else in the court doubted the defendant's sincerity; but as he openly proclaimed that "doctoring was against his principles" and that therefore he had not attempted to obtain any medical advice, both Sollenberger and Ezra Sheets were condemned to three months' imprisonment. They cannot complain that this is a severe sentence; we hope it may suffice to maintain the law and to prevent fatal experiments being made upon defenceless infants. We are not sure but that the mother should likewise have shared in the penalty, for it is a strange aberration on the part of parents to confide sick children to people who are known to repudiate all idea of seeking medical advice. If this sort of thing was sanctioned "the making of angels," as the French say, which constitutes the most profitable phase of baby-farming, would meet with serious competition from unscrupulous "faith-curists." Under the mantle of religious convictions much could be done to hasten the departure of unwelcome infants.

THE BOROUGH OF LAMBETH AND BACTERIOLOGICAL EXAMINATIONS.

DR. JOSEPH PRIESTLEY, medical officer of health of the borough of Lambeth, has issued a very interesting report dealing with the results of 1000 bacteriological examinations made in the borough laboratory. The laboratory was opened in 1899 at Loughborough, and the work done has been mainly concerned with tuberculosis, typhoid fever, and diphtheria. Out of 200 samples of sputum from doubtful cases of tuberculosis 68, or 34 per cent., were found to contain tubercle bacilli. Of 178 samples of blood from suspected cases of typhoid fever 97, or 54·5 per cent., gave the Widal reaction. Of 620 samples of membrane and secretion from the throats of patients suspected of being affected with diphtheria 191, or 30·8 per cent., gave the true Klebs-Löffler bacillus. A good example of the value of bacteriological examination is the following history of a school in Lambeth:—

"Out of a total of 137 scholars 57 suspicious throats were from time to time examined bacteriologically, with the result that 48 showed the presence of bacilli—four the Klebs-Löffler (true diphtheria) bacilli and 38 the Hoffmann (pseudo-diphtheria) bacilli. The four cases of diphtheria were at once sent to the hospital, while the 38 pseudo-patients were isolated in a special isolation house belonging to the school, but distinct and away from the main building, and not allowed to return to the main building until further bacteriological examination of their throats failed to show the pseudo-bacilli. The preventive measures which I suggested, and which were strictly carried out by the medical attendant, may be mentioned. The scholars were carefully watched from day to day, suspicious throats swabbed and examined bacteriologically, and afterwards isolated, or not, according as such examinations gave positive or negative results. In this way the whole of the doubtful cases were separated out and kept under observation in an isolated building, where they remained until such time as further bacteriological examinations showed the scholars' throats to be free from infection. Then, and not till then, were the scholars gradually drafted back into the school, after their clothes and persons had been efficiently disinfected. The result justified the means taken, as the outbreak of pseudo-diphtheria has been stamped out; whilst, although pseudo-throats appear, in the light of our present knowledge, to form a suitable breeding-ground upon which true diphtheria may at any time become ingrafted and spread rapidly (the pseudo-bacilli apparently at times changing into the true diphtheria bacilli, and *vice versâ*) only one such true diphtheria case developed, making a total of five diphtheria cases altogether. It was not necessary to take the extreme measure of closing the school and distributing the scholars over various parts of London and elsewhere—a procedure that may have to be adopted at times—e.g., when the school buildings are found to be insanitary, the school attendance much interfered with, &c."

These results show very well how great an aid to preventive medicine is a careful bacteriological examination.

ALCOHOLIC HOMICIDE.

DR. W. C. SULLIVAN, deputy medical officer of Her Majesty's Prison, Pentonville, has published in the October number of the *Journal of Mental Science* a paper on Alcoholic Homicide based on a series of 80 observations, comprising 36 cases of homicide and 44 cases of grave homicidal attempts "in which the criminal act could in some considerable measure be assigned to the influence of alcoholism." To illustrate the special characteristics of the homicide of alcoholism several cases are described, of which the following (the first) is typical. It was that of a male, aged 28 years, a sailor. The father was mentally unstable and was "subject to fits." The paternal uncle died insane and the patient himself was said to have had sunstroke. When sober he was of normal feeling and intelligence, but when intoxicated he was violent. He had three times been convicted for having been drunk and disorderly. On the evening of the eleventh day of a severe drinking bout he was seen going home with his wife and appeared to be on "boisterously affectionate" terms with her. During the night he cut her throat with a razor as she lay in bed and then made an almost successful attempt to commit suicide with the same weapon. He professed to have no memory of the act and could not at any subsequent time suggest a motive for it. While under treatment for his self-inflicted wound he suffered from the severe digestive and nervous symptoms of alcoholism. Dr. Sullivan regards this as a good example of the "automatic type of alcoholic homicide. As in the corresponding form

of alcoholic suicide[1] there is an entire absence of apparent motive, the act is committed in a state of acute intoxication, no trace is left in the agent's memory, and finally, to show the identity in nature and origin of the two impulses, the murder is followed by a suicidal attempt." In explanation of this it is pointed out that the cerebral condition in alcoholism is one which may be termed excitability of the so-called psycho-motor or kinæsthetic functions. In this condition the slightest suggestion arising from whatever cause within the mind tends to be translated into action with extraordinary facility. A clear instance of such agency, trivial in itself but potent in alcoholics, is afforded in a case recorded by Professor Despine, where one of four drunkards who were carousing together suggested the hanging of the most intoxicated of the party—a suggestion which was promptly carried out, with results which only failed of being fatal through the accident of outside intervention. In other alcoholic subjects murder of a wife may be the result of delusions of marital infidelity or of poisoning, which are very prone to develop in chronic alcoholism. In others again a state of sub-conscious automatism similar to that of the post-epileptic stage may be associated with the homicidal act. In few cases is there any degree of lucidity and purposiveness in the act. Chronicity and long indulgence in the drinking habit are the natural antecedents of true alcoholic homicide, except in cases where there exists initially some degree of mental instability, hereditary or acquired. There may then be a very precocious development of impulsive automatism in which the rôle of intoxication is largely overshadowed by that of the primary mental disorder. Cases of this kind form the transition to insane homicide unconnected with alcoholism.

THE SANITARY STATE OF MADEIRA.

DR. KROHN of Funchal, who, in collaboration with an Englishman, Dr. F. J. Hicks, has charge of the Seaman's Hospital, is the author of a report on the sanitary condition of Madeira which has been published in the *Archiv für Schiffs- und Tropen-Hygiene*, vol. iii., 1899. The water-supply of Funchal is of two kinds, one for drinking purposes and the other for gardens, baths, and closets. The former, which is distributed by means of "hermetically closed conduits," is obtained from five chief sources above the town, and according to analyses made in England its quality is excellent in every respect. There are no sewers in the island, night-soil being diverted into loose-bottomed cesspits, but happily under such circumstances water-closets are the exception. Scavenging in Funchal is only fairly attended to, but the markets are maintained in an exemplary state of cleanliness. Madeira is celebrated for the magnificence of its climate, and yet according to Dr. Krohn the mortality amongst the natives was at the rate of 27·4 per 1000 in 1897, and higher still during the two preceding years. Out of 1067 deaths from all causes (diseases) in 1897 there were 84 from phthisis pulmonalis. Tuberculosis, says Dr. Krohn, is widely spread among the lower classes, as are also pneumonia and bronchitis, which are very fatal to children. Scarlet fever and small-pox are of rare occurrence, but diphtheria, measles, and whooping-cough are common, while typhoid fever is extremely prevalent among the lower orders. The type of these affections is, however, remarkably mild, the mean mortality of the last-mentioned during 12 years having been 0·97 per 1000 inhabitants. The disease which is most prevalent in Madeira would seem to be diarrhœa, but cases of dysentery are only occasionally met with. Leprosy, which formerly was very common in the island, is now said to be dying out, the number of patients under treatment in the special hospital being only four, of whom two were suffering from elephantiasis. There are five hospitals in Funchal and its vicinity: (1) the military hospital, which "leaves much to be desired from every point of view"; (2) the civil hospital, containing 80 beds; (3) the above-mentioned lazar-house; (4) the Donna Amelia Hospital, which is reserved for patients suffering from pulmonary tuberculosis; and (5) the Seaman's Hospital, founded by Dr. Goldschmidt, where mariners of all nationalities are admitted on payment of two and a half francs per diem. Notwithstanding the drawbacks which he enumerates Dr. Krohn strenuously asserts that Funchal makes a most admirable sanatorium for sufferers from tuberculosis and malaria. No doubt the natural advantages, including complete freedom from malaria, are very great, but evidently much might still be done to supplement them. Madeira was originally discovered in a romantic way by an Englishman, Mr. Macham, in 1345, and it was not until 1419 that it was occupied by the Portuguese. In 1807, when the Royal Family of Portugal emigrated to the Brazils, Madeira was taken possession of by Admiral Hood and Lord Beresford, but after some time it was restored to the Portuguese Crown.

[1] THE LANCET, April 14th, 1900, p. 1081.

THE RÔLE OF CONSANGUINITY IN THE ETIOLOGY OF EPILEPSY, HYSTERIA, IDIOCY, AND IMBECILITY.

A CONTRIBUTION of interest on the above subject appears in a recent *Thèse de Paris* (1900) by Dr. Theophile Gillet of Paris, dealing with the results of consanguineous marriages in relation to certain neuroses and psychoses. Dr. Rilliet and Dr. Barthez in their classical "Treatise on the Diseases of Children" (1859) had stated that the results of consanguinity of parents were as follows. First, fewer births; secondly, more miscarriages and still-births than the average; thirdly, weakness (physical and moral) of the surviving children; fourthly, a special tendency in the offspring to diseases of the nervous system, such as epilepsy, idiocy and imbecility, deaf-mutism, and local cerebral palsies; and lastly, a special proclivity in the offspring to tuberculous degeneracy. It has since been stated that among the more frequent results of consanguinity in the parents are such abnormalities as albinism, deaf-mutism, and retinitis pigmentosa in the offspring, even in cases where but one parent showed the specific morbid taint. The observations of Dr. Gillet were made at the Bicêtre during 11 years (from 1889 to 1900), during which period 1228 children were under care and treatment. Inquiries were also made into the histories of 425 girl patients at the Fondation Vallée, Paris, an institution for children suffering from nervous diseases. The total number of cases investigated was, therefore, 1653. Inquiries into the family histories of these patients elicited the fact that there were 45 instances of consanguineous marriage in the parents. These 45 families were minutely studied, with the result that the offspring of these families taken *en bloc* showed 19 cases of idiocy, 14 of epilepsy (idiopathic or symptomatic), eight of imbecility, three of hydrocephalus, one of chorea, and one of idiocy, a total of 46 grave neuroses and cerebral defects. The relative degrees of consanguinity were as follows. In 28 instances the father and mother were first cousins, in nine they were the children of first cousins, in seven instances they were cousins of the third, fourth, and fifth degree, and in one case uncle and niece. Inquiry into the condition of their children during infancy revealed the fact that convulsions and meningitis were notably prevalent, while idiocy or imbecility and chorea were also found to prevail in an abnormally high degree. Taking the total of all the surviving children of these consanguineous

marriages it appeared that 2·7 per cent. of them suffered from idiocy, epilepsy, imbecility, hysteria, or other grave cerebral disorders—a proportion very much larger than that generally present among the offspring of those in the same rank of life but who had not contracted consanguineous marriages.

THE ROYAL INSTITUTION OF GREAT BRITAIN.

AMONG the Friday evening lectures to be delivered before Easter, 1901, at the Royal Institution are: "Gases at the Beginning and End of the Century," by Professor Dewar, on Jan. 18th; "The Existence of Bodies Smaller than Atoms," by Professor J. J. Thomson on Feb. 15th; and "Some Recent Work on Diffusion," by Mr. Horace T. Brown, on March 22nd. The Tuesday arrangements will include a series of five lectures on "The Cell as the Unit of Life," by Dr. Allan Macfadyen, and they will be delivered on Feb. 26th, and March 5th, 12th, 19th, and 26th. "On the Origin of Vertebrate Animals" will be the subject of three Thursday lectures by Dr. Arthur Whilley, the dates of delivery being Jan. 17th, 24th, and 31st.

THE WATER-SUPPLY OF NEW YORK CITY.

THE water-supply of New York, though more plenteous by far than that of London and than that of most of the large European cities, is the cause of much anxiety to citizens and sanitarians. It is argued, and undoubtedly with truth, that the supply for Greater New York is not keeping pace with the growth in population, and that under present conditions this supply will soon become inadequate. The Merchants' Association of New York have recently made an exhaustive study of the question and as a result of their investigations the following data have been gathered. All the supply of Manhattan and the Bronx—the two boroughs constituting New York until 1897—is furnished by the city with the exception of 1,000,000 gallons daily supplied by a private company. Brooklyn is almost wholly supplied with water from ponds and "driven wells," all but 7 per cent. of which are under municipal control. Richmond and Queens, the two other boroughs which make up Greater New York, are supplied by wells owned nearly entirely by private corporations. The average daily consumption of all these boroughs in 1899 was 371,778,000 gallons, an estimated average daily consumption per capita of 103 gallons. The total daily yield was about 409,000,000, but in the boroughs of Brooklyn, Queens, and Richmond the present consumption is shown to be nearly equal to the present supply, while it is estimated that in 1903 the consumption in Manhattan and the Bronx will nearly equal the supply at that time available under present methods. The conclusions reached, therefore, are that an additional supply of water for the entire city is imperative, and, seeing that from six to seven years will be necessary to complete the work of furnishing this additional supply, that immediate steps should be taken to make a beginning. The plan most generally favoured would appear to be the utilisation of the Hudson river above Poughkeepsie about 70 miles from New York. The Medical Society of the County of New York has been interesting itself in the matter and Dr. Chapin, the chairman of the Committee on Hygiene of that body, has lately published in his annual report on the public health of New York a lengthy review of the situation as regards the water-supply. Referring to the Hudson River scheme, of which he approves, he says: "It is proposed to filter this water, the experience of other cities having shown that filtration is a perfect method of purifying water, being, indeed, only a scientific reproduction of a process of nature. That filtration is effective in removing impurities and germs of disease is amply proved by the experience of Albany, Poughkeepsie, London, Hamburgh, and other cities. The reduction of typhoid fever and diarrhœal diseases with the introduction of filtered water has occurred in a large number of cities in Europe and America." Dr. Chapin also strongly advises that any arrangement for increasing the water supply of New York be under municipal management and control and not by contract with any private company, the cost to the consumer being almost always less under public control than under private ownership. According to our New York correspondent, much dissatisfaction with the quality of water supplied to New York City is now being evinced by the general public, so that it seems probable that immediate steps will be taken to remedy the evil.

THE DIAGNOSIS OF POTT'S DISEASE.

BEFORE the Section of Orthopædic Surgery at the New York Academy of Medicine Dr. H. Gibney recently read a paper on the Diagnosis of Pott's Disease, which was illustrated by the exhibition of photographs and the presentation of some interesting patients. Dr. Gibney said that photographs clearly presented the attitudes but failed to display the characteristic movements and deportment of the patient affected with Pott's disease, but the accompanying figure

from his collection graphically demonstrates the over-erect attitude which was assumed by one of the sufferers, throwing light on the mechanism of the production of the lordosis which appears as a compensating curve below the kyphos.

DIPHTHERIA BACILLI IN HEALTHY NOSES AND THROATS.

THE *Boston Medical and Surgical Journal* of Nov. 22nd contains a valuable paper on this important subject by Dr. Francis P. Denny, bacteriologist of the Brookline Board of Health. Kober found from a review of all the reports which he could collect that of healthy persons who had not been exposed to diphtheria 7 per cent. had Klebs-Löffler bacilli in their throats, while of those who had been thus exposed 18·8 per cent. exhibited these organisms. But his own investigations showed only 0·83 per cent. among the non-exposed and 8 per cent. among the exposed. The high percentages found in literature are to be explained by the fact that many of the cultures were made from individuals living in institutions or in the crowded tenements of large cities. Another reason for the high percentages

is that in many reports no distinction is made between virulent and non-virulent bacilli. The latter do not differ morphologically from the Klebs-Löffler bacilli but they are probably not a source of danger. They may show slight variations of growth from that of virulent bacilli on certain media, the most important of which is failure to produce acid in sugar bouillon. These bacilli have never been made virulent by experimental cultivation. The bacilli found in healthy persons who have been exposed to the disease are usually virulent. Virulent bacilli may multiply in the throats and noses of certain persons without producing symptoms because these persons are immune to the disease, just as they multiply in the throats of those convalescing from diphtheria. These healthy individuals with virulent bacilli in their throats can communicate diphtheria to others. In coughing, sneezing, and even, according to Pflügger, in speaking, the bacilli are scattered about. They are carried from the mouth on towels, handkerchiefs, forks, spoons, and cups. Many outbreaks of diphtheria in children's institutions which persisted for a long time, despite the fact that all sick children were promptly isolated and the rooms were disinfected, have been quickly stamped out when the healthy children's throats have been tested and when those children whose throats contained bacilli have been isolated. In examining a healthy person for the bacilli of diphtheria cultures should be made from both the nose and the throat, for bacilli may be present in the former and absent in the latter. It is very important to remember that antitoxin prevents only the development of symptoms and not the growth of bacilli in the throat. Thus its prophylactic use may favour the spread of diphtheria, for the artificially immunised persons who otherwise would have developed symptoms and have been isolated are allowed freedom while there are abundant bacilli in their throats. Hence the importance of making cultures from their throats and isolating them if necessary. The nurses in charge of cases of diphtheria frequently have bacilli in their throats without developing the disease. The following narrative shows the value of the examination of the throats of healthy persons for the bacilli of diphtheria. Two children of a milkman's family were sent to hospital suffering from diphtheria. As it was thought that other inmates of the house might harbour the bacilli in their throats and infect the milk cultures were made from their throats. These were negative. About three weeks later diphtheria began to appear among the milkman's customers. Cultures were again made from the milkman's household. Three healthy men, two of whom did the milking, were found to harbour the bacilli of diphtheria, which were very abundant and which proved to be virulent to guinea-pigs. At Brookline during a recent epidemic of diphtheria culture outfits were kept at all the schools. When a child was taken ill with diphtheria inspectors made cultures from those children who sat nearest to the affected child in school. When more than one case occurred in a room cultures were made from all the children in that room. In one case three children who sat in adjoining seats were taken ill simultaneously with diphtheria, and cultures of the bacilli of diphtheria were obtained from the throats of two perfectly healthy children sitting near them.

THE HEREFORDSHIRE GENERAL INFIRMARY.

MOST visitors to the city of Hereford will remember the General Infirmary buildings situated in the picturesque grounds overlooking the river Wye. Established as long ago as 1776 the infirmary with its 100 beds has been carrying on most serviceable work, not only among the inhabitants of Herefordshire, but there has been found room in its wards for patients from the adjoining counties of Worcester, Monmouth, and Radnor. In order to secure more sustained support in the county it was decided early in the present year to make certain alterations in the form of management and at a recent meeting of the governors some definite changes were made. The first proposal was for a change of name. For a century and a quarter the institution has been known as the Hereford General Infirmary and it was suggested that a more comprehensive, though certainly less euphonious, title would be the Hereford County and City Hospital. After several other names had been discussed it was decided, wisely we think, to make the simple alteration to the Herefordshire General Infirmary. With only one other material modification of the constitution are we now concerned and that is in connexion with the representation of the medical staff upon the board of management. Hitherto the whole of the staff have occupied seats upon the board, but it would appear from the reports in the local newspapers that some of the lay members have occasionally found themselves in a minority with the whole of the staff opposed to them; it was decided, therefore, that the staff should elect two of their number upon the board of management. The medical staff are stated to have quite acquiesced in this proposal, so that if they are satisfied we can have little to say on the matter, but as the two medical members will be only one-sixth of the whole board no harm would have been done if the number had been doubled, for even then they would have been in a minority.

WORKMEN'S DWELLINGS IN COLLIERY DISTRICTS

THE exceptionally flourishing condition of the coal trade has given special prominence to the question of the housing of the working-classes in colliery districts, for the higher wages obtained by colliers has attracted to the coal-pits quite an army of labourers who have never before worked underground. In the South Wales coalfield especially the want of houses is being noticeably felt and houses are allowed by sanitary officials to be occupied which ordinarily would be condemned, solely because there is absolutely nowhere else for the occupants to go, while it is almost the exception in many localities to find a cottage house part of which is not sublet in "apartments" or to single men lodgers. Usually private enterprise is to be relied upon to provide a remedy for such deplorable conditions as those indicated, but the present high price of building materials and the increased wages that are now prevailing are quite sufficient to make the speculative builder hesitate before embarking upon any very extensive undertaking. It is gratifying to find that in some districts the sanitary authorities are themselves undertaking the duty of providing suitable housing accommodation. At Nantyglo Part III. of the Housing of the Working Classes Act, 1890, has been adopted and the district council are now in a position to erect lodging-houses and workmen's cottages. At Merthyr Tydvil the working men have for several months been urging upon the urban district council the desirability of erecting workmen's dwellings and an initial step has been taken in seeking for power to borrow the sum of £15,000 for the purpose of building in the first instance 100 cottages. At the Local Government Board inquiry recently held in connexion with this scheme it was stated that each house would have three bedrooms and would let at 5s. weekly. The ground-rent of each house is £1 per annum and the land is taken upon lease for 999 years. Merthyr Tydvil has long had an unenviable reputation even among the insanitary towns of Glamorganshire. It is a great pity, therefore, that some of the leading and most influential inhabitants of the town should be found actively opposing the efforts of the council in dealing with a most difficult problem. The sole argument

of the opposition appears to be the very selfish one that if the cottages do not pay their way those who live in the more highly rated portion of the district will be called upon to pay their proportion of the loss.

THE CALEDONIAN MEDICAL SOCIETY.

As will be seen by a notice in our advertisement columns, the Caledonian Medical Society is offering two prizes of the value of £20 and £10 respectively for the best original essays upon subjects selected from the "Domain of Celtic Ethnology, History, Philology, or Medicine." The subjects are very wide and so is the area of competition, for it is open to everyone and should attract a large number of candidates. Celtic ethnology, including, we suppose, folk-lore, is an entrancing subject and one which should be the cause of most interesting essays. The essays must be sent to the secretary, Dr. S. R. Macphail of Rowditch, Derby, by Jan. 1st, 1902.

THE ALEXANDER MEMORIAL PRIZE.

OWING, probably, to the pressure of work entailed on the officers of the Royal Army Medical Corps by the war in South Africa, no essays competing for the prize of £50 and a gold medal have been received within the limits of time required. The committee have therefore resolved to offer the same subject for the next competition—viz., "Injuries to joints and long bones caused by modern small-arm projectiles, their nature, diagnosis, and treatment, with special reference to the appliances required and available on field service." Essays must reach the president of the committee on or before Dec. 31st, 1902, must bear a brief motto, and be accompanied by a sealed envelope similarly superscribed, containing the name and address of the author. No essay should exceed about 20,000 words, exclusive of tables which may be added in the form of appendices. The competition is limited to executive officers of the Royal Army Medical Corps on full pay, and professors and assistant professors at Netley are not eligible while so employed.

THE NATIONAL SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN: AN APPEAL.

CHRISTMAS is heralded by the usual procession of appeals to charity. It is not too much to say that the majority of these are deserving of sympathetic recognition. Not a few are worthy in the highest degree. It is no less true that only the longest purse can even attempt to alleviate their innumerable necessities. It thus becomes for most of us a plain duty to select with the best judgment that we can those benevolent objects the furtherance of which appears to be most desirable. A list of such objects can have no constant composition. Its character will vary with the views of each compiler and we would be the last to prejudice this liberty of individual judgment. It is assuredly with no such motive that we take this opportunity of directing public attention to the needs of one such deserving effort of charity. It is the National Society for the Prevention of Cruelty to Children. The society, notwithstanding that it has many and influential supporters, has not passed through the financial crisis involved by the war in South Africa without suffering some curtailment of its revenue. In view of the fact that its weekly expenditure amounts to the sum of £1100, a moderate income in itself, this is a serious consideration. Moreover, its work is entirely concerned with emergencies, which, however they may be regretted, cannot be overlooked without serious injury to the many illtreated children whom it seeks to help. Thus the extension of its operations is a matter of practical necessity. We have repeatedly explained the nature of these operations. The judgment with which they have been carried out is conspicuous. The society has earned its meed of approval at the hands of the bench, of the police authorities, and even of parents out of whose cruel misdemeanours it has evolved the order and happiness of normal home life. It is hardly needful to remind our readers that whatever is saved and strengthened in the childhood of to-day will go to fortify the manhood and womanhood of the coming generation. Nor need we rehearse the part which has been taken by the society in promoting every recent legislative measure for the welfare of the young. But we trust that its endeavours will be aided by the liberality of the country in whose interest its work is done. In particular we would express a hope that a serious effort will be made to wipe off a deficit of £8000 which has acted as a drag upon the movement of the society during the present year.

THE INCREASED PREVALENCE OF APPENDICITIS IN SWITZERLAND.

OUR Zürich correspondent writes:—Dr. Haemig, first assistant of Professor Krönlein, made an interesting communication on Dec. 6th, at a meeting of the Zürich Medical Society, on a series of cases of appendicitis observed at the Surgical Clinique of Zürich from 1881 to 1900, the 20 years during which Professor Krönlein had been in charge of the clinique. The numbers of cases admitted increased from year to year, so that against 45 cases in the first 15 years there were respectively 13, 21, 35, 41, and 48 cases of admission in the last five years. Of these 203 cases, in 35 there was no operation, five of the patients being in a hopeless condition, and in the other cases operation being considered to be unnecessary. 51 patients had to be operated upon in the acute stage for abscess, four of these cases terminating fatally; in 27 cases generalised peritonitis had already supervened and of these 21 terminated in death, notwithstanding immediate operation. 91 patients were operated upon in the "free interval" and all recovered. The mortality percentage of the cases was 14, but if only the cases operated upon in the acute stage, without any generalised peritonitis, and those operated upon in the "free interval" be considered it will be seen that 142 cases had a mortality of only 3½ per cent. Dr. Haemig laid due stress on the desirability of operating in the "free interval" and if possible after the first severe attack of appendicitis. The fact of the greater prevalence of appendicitis among men (70 to 30) is accounted for, he considers, by the better blood-supply of the appendix in females.

THE WAR AGAINST TUBERCULOSIS IN CANADA

THE Ontario Legislature has recently adopted a special Act to authorise the establishment of sanatoria for the treatment of phthisical patients. The usefulness of such institutions is generally acknowledged and they already exist in Switzerland, Germany, Belgium, and other countries. They differ, we take it, from a hospital such as the Brompton Hospital for Consumption, because they are not meant for acute cases and are not erected in the towns to which they belong, but in some more or less distant locality where the topographical and climatic conditions are specially favourable for the treatment of the disease. At the onset, however, the difficulty arises as to who shall be responsible for the expense of maintaining and building a sanatorium of this description. The medical officer of health of Toronto is endeavouring to solve this problem by proposing what can only be described as a mixed system. He does not suggest that a municipal sanatorium should be created, but he nevertheless calls upon the municipality to give a grant of $50,000 in aid of such an institution. In exchange for this grant he proposes that philanthropic institutions and charitable persons should supply an equal

sum, that the sanatorium should not be situated at a greater distance than 40 miles from Toronto, and that it should undertake to receive such patients as the city may send for a payment of 40 cents per day. On the other hand, the city must not send strangers, but only such persons as have resided at least one year at Toronto. These proposals have met with a ready response. The Baptists and the Methodists are taking active steps to support the institution, and the National Sanatorium Association have on their side offered to build a free sanitorium containing 50 beds that are to be reserved for the phthisical poor of the city. It is claimed that Manitoba is well suited for the purpose. Others, on the contrary, urge that the best districts lose their advantages if frequented by a large number of persons suffering from tuberculosis. For instance, it is stated that at the Adirondacks and in certain chosen spots of Colorado and California experience has demonstrated that security depends entirely on the destruction of the germs. Unless patients are kept in a sanatorium and under strict regulations their sputa will infect the atmosphere. They must use antiseptic handkerchiefs and must only spit in spittoons specially prepared for them. The great use of sanatoria is that they serve to enforce these rules and to isolate the patients from the rest of the population. In this matter the city council of Toronto and the Ontario Legislature have rendered great service to all who are striving to check the spread of tuberculosis.

ELECTRIC RAILWAYS AND VIBRATION.

THE chorus of approval which greeted the opening of the Central London Railway having subsided the voice of those residing near it is making itself heard in complaints to the effect that the constantly recurring noise and vibration due to the passing of trains will compel them to leave their houses unless means are taken to abate the nuisance. They have good cause of complaint, for many of them live in comparatively tranquil streets off the main road under which the "twopenny tube" runs, and even at a considerable distance from it they have to put up with daily discomfort and with the knowledge that should any member of their households become seriously ill quiet would be unattainable. The usual laying-down of straw that deadens the rattle of the passing cab or cart will not avail against the far-reaching vibration of the electric trains smashing along in the narrow space allotted to them. Illness, we may point out, does not warn its victims when it attacks them that it is going to be serious, and the patient for whom quiet may be essential is often far too ill to be removed from his house. Mr. J. M. Lely writes to the *Times* citing a clause which he has discovered in one railway Act passed some time ago, making the company for which it was passed liable for structural damage caused to houses near it within three years of its completion, and he suggests the universal application of a similar provision. Such a clause would not directly assist the sick persons to whom we have referred, but it is rather to be hoped that the present agitation will be the means of instigating the invention of electric trains that will run quietly. Mr. Lely refers to a judgment of the House of Lords given in 1869 to the effect that no compensation is recoverable for vibration, noise, and smoke arising from statutory operations carried on without negligence, which judgment he submits was wrong. The same principle upon which this case was decided is responsible for the position of railway companies with regard to fires caused by sparks from their engines. The traction engine on the high road is liable for any fires it may cause, as, for example, to crops or stacks; the railway engine is only liable if it has caused fire when negligently worked, for the reason that it is authorised by Act of Parliament. Such immunity will never stimulate the invention of apparatus for the prevention of the escape of sparks. New electrical enterprises are, however, likely soon to be fettered with conditions as to vibration, and the issue of the prospectus of a new "tube" to run from Paddington and Baker-street to Waterloo has been far from a success, no doubt largely owing to the question of possible compensation for damage and the knowledge of the hostility of house-owners to such projects. We do not often weary our readers by saying, "I told you so," though frequently we could make the claim with justice. But on this occasion we refer our readers with complacency to an article which appeared from the pen of an exceptionally well-informed correspondent in THE LANCET of May 12th, 1900, and to an editorial endorsement of his views. We and he alike warned the readers of THE LANCET that much of what is now happening might happen, and both of us were then told with some acerbity that our forebodings had no basis in fact.

LEADLESS GLAZES.

IT is gratifying to learn that public interest has been so far aroused in the question of lead poisoning in the Potteries that an increased demand is steadily increasing for leadless glazed ware. According to some letters published in the *Times* this week several inquiries have been made as to where specimens of china glazed without lead may be seen or procured. We may remind our readers that specimens of leadless glazed china have been displayed for now nearly two years in the Science and Art Department of the Geological Museum in Jermyn-street identical with those examined by THE LANCET Analytical Commission on Some Leadless Glazes, the report of which appeared in THE LANCET of Jan. 7th, 1899, p. 49. At the time when THE LANCET Commission took up this inquiry the importance of the subject was very generally belittled. It was also urged, especially by the manufacturers, that leadless glazes were impracticable and the idea was ridiculed. According to our Commissioners' experiments in 1898 we did not think so, and we have now the satisfaction of knowing that at the close of 1900, and of the nineteenth century, leadless glazes are being largely adopted in this country.

THE RARITY OF TUBERCLE AMONG THE ISRAELITES OF TUNIS.

THE current number of the *Revue d'Hygiène et de Police Sanitaire* contains a suggestive note as to the incidence of tubercle upon the Israelites of Tunis which would seem to afford at least a useful indication from the point of view of prevention. The authors of the note in question are Dr. Tostivint and Dr. Remlinger, and they report that during the five years from 1895 to 1899 the Israelites of Tunis lost 2744 of their number by death, of which deaths only 34, or 1·24 per 1000, were attributed to tubercle. It would seem that the population of each race is not precisely known, but the data available suggest that the average annual mortality from tubercle among the Mussulman Arabs for the years 1894 to 1900 was 11·30 per 1000, that among the Europeans 5·13 per 1000, and that among the Israelites only 0·75 per 1000. The two French physicians do not regard it as likely that ethnical differences can be held to explain the relative immunity of the Israelites seeing that they, like the Arabs, appertain to the Semitic race. Nor are the writers able to discover any disparities as to nourishment, clothing, &c., which might reasonably be held to explain the situation. The poor Israelites occupy that portion of the town common to them and to the Mussulmans, while the rich few inhabit the localities in which also the Europeans dwell. There is, however, one custom peculiar to the Israelites to which the small incidence of tuberculosis is, in the view of the writers, attributable. The Israelites abhor

the dusting-brush, and in its stead they wipe all surfaces, in some instances several times daily, with damp cloths. By this means the dust raised by dry dusting is largely reduced, and hence also is lessened the risk of inhaling air-borne tubercle bacilli. Moreover, the Israelites use but little furniture as contrasted with the French or Italians, and consequently the opportunities for the collection of dust are correspondingly diminished. It would have added to the interest of the communication could something have been said as to the methods of food inspection common in Tunis among the several peoples, but the inference from the paper is clearly, as Dr. Tostivint and Dr. Remlinger remark, to preach a crusade against the use of the dusting-brush. It is instructive in this connexion to learn that dry cleaning has been prohibited in the military establishments of Tunis.

MEDICINE AND MUNICIPALISM IN THE METROPOLIS.

THE large borough of Islington has set a good example, in constructing its new Council, by electing three members of the medical profession. They are William A. Malcolm, M.B., C.M. Edin.; John Walker Smyth, L.R.C.P., L.R.C.S. Edin.; and George Brown, M.R.C.S. Eng., L.S.A., a Direct Representative of the profession on the General Medical Council of England and Wales. We congratulate these gentlemen on the possession of that public spirit which leads them to forego some personal and professional leisure for municipal purposes, and we also congratulate the new corporation of Islington on the election of members who in virtue of their liberal education and professional experience may be expected to make valuable contributions to the debates on the many grave social and politico-social questions involved in the municipal government of this important metropolitan district.

THE INFLUENCE OF ACUTE INFECTIOUS PROCESSES UPON EPILEPSY AND OTHER NEUROSES.

Dr. Pierce Clark and Dr. E. A. Sharp, of the Craig Colony for Epileptics, New York, contribute an important paper dealing with this somewhat obscure and little-known subject to the *New York Medical Record* of Dec. 1st. Ever since the time of Hippocrates, who noticed that a pre-existent epilepsy or mental disorder was frequently modified (for better or for worse) by an acute traumatic or febrile process, many writers have stated that an infectious process in the course of a chronic mental or nervous disease is advantageous and should be encouraged to the point of establishing such an element for curative purposes. This has especially been advocated of late years by "some French and Italian writers, who have urged the establishment of malaria in epileptics and, when the epilepsy is recovered from, the cure of the malaria by the exhibition of quinine." Dr. Clark and Dr. Sharp point out that now and then a report is recorded of an improvement of a neurosis under some accidental complication. Cases of the opposite kind, where improvement fails to occur, are of course not published, and thus it has come to be believed by many "that insanity and the degenerative neuroses, such as epilepsy and idiocy, may be permanently cured by contracting erysipelas, pneumonia, or chronic malaria." With the idea of gaining more definite and precise information careful observations were made on patients who had suffered from epilepsy for variable periods of time and with varying degrees of severity, and who, during the course of the epilepsy contracted measles and erysipelas. Five cases are recorded where the complication was measles, which occurred in girls of the ages of six years (three cases), 14 years (one case), and 17 years (one case). Seven cases are also recorded of epileptic patients who contracted erysipelas, two of these being females (aged 27 years and 25 years respectively) and five being males (aged 55, 46, 42, 37, and 32 years respectively). In addition to these 12 cases two cases subsequently came under notice, making a total of 14 cases. From a study of these 14 cases it appeared that in not one single instance was the pre-existing epilepsy favourably modified for any great length of time. In a few cases the progress of the disease was accelerated by the infectious complication, and in one the measles caused status epilepticus. In those cases in which the epilepsy was favourably modified the temporary improvement was slight and of very short duration. The writers therefore conclude "that instead of the physician urging his patient to run the risk of an infectious disease, with the small chances of such an accident resulting favourably to the existing neurosis, he should urge them to avoid any and all such complications as far as possible."

THE INDIAN PASTEUR INSTITUTE.

THE Pasteur Institute at Kasauli has not so far been more favoured by fortune than was the rise of the sister establishment in this country. Notwithstanding a record of unexceptional success in the treatment of hydrophobia appeals for funds have not met with that encouragement which they deserve. Native opinion, we regret to learn, is still opposed to the institute. Not only so, but memorials have been submitted to the Government of India protesting against any grants of State aid on grounds which can only by a falsehood be described as humanitarian. Everyone who is conversant with the history of modern science will admit that without the infliction of some degree of suffering upon the lower animals a very large portion of the relief now afforded by medical treatment would have been impossible. Yet the Indian objector, like his British fellow-fanatic, is blind to the logic of this patent fact. His position, moreover, is in the present connexion more obviously untenable because at Kasauli the inoculations are performed under chloroform and the animals, as far as can be observed, suffer no pain. Bishop Welldon, preaching recently in Calcutta, referred to this subject and was able to assert from personal observation that the whole process is carried out with the most scrupulous humanity. His testimony and that of others equally well informed will, we trust, remove any misunderstanding, at all events on the part of the educated inhabitants of India, respecting the conduct of an institution the purpose of which is only and purely merciful, and which at any time may be called upon to render to themselves or to their families indispensable service. We feel certain that these efforts of the institute and of the Indian Government to combat such a scourge as hydrophobia must be regarded by many of them already with unqualified approval.

THE LATE SIR JOHN CONROY AND THE RADCLIFFE INFIRMARY.

BY the death of Sir John Conroy the Radcliffe Infirmary at Oxford loses its late treasurer and at the same time a friend whose place it will be almost impossible to fill. He entered upon his office at a time of very great difficulty in the affairs of the infirmary and threw himself heart and soul into the technical work of the institution. Not only this, but in addition he set himself to the task of making its administration pleasant to all concerned and his natural kindliness and tact made his term of office a time when everything went smoothly and when all the best interests of the infirmary were conserved. His scientific knowledge and his knowledge of practical laboratory work were constantly of the greatest service to the hospital, not only in its work but also in enabling him to appreciate the practical necessities of the staff, especially as

regards modern surgery, and to interpret their wishes to the lay committee. His interest in his work was very great. Hardly a day passed while he was in Oxford that he did not spend hours in becoming acquainted with all the current details of administration. Last spring he had to be absent for some months for the sake of his health. He went to Italy and seemed to a great extent to have recovered. In July, however, a recrudescence of disease occurred and he was forced to resign the treasurership, as he felt that the climate of this country was impossible for him. It was largely through his appreciation of the requirements of modern surgery that the new operating theatre, of which we gave an account in THE LANCET of June 23rd, 1900, p. 1822, was built. Sir John Conroy, who was born in 1845, was educated at Eton and Balliol, being a Fellow of the latter society and Bedford Lecturer and a Fellow of the Royal Society.

THE PRESIDENT OF THE LOCAL GOVERNMENT BOARD AND THE METROPOLITAN WATER-SUPPLY.

ON Thursday, Dec. 13th, Mr. Long, the President of the Local Government Board, received a deputation from the London County Council on the subject of the water-supply of London. The new Minister thus early in his career was able to make a statement of the views which he holds on this important subject. The Government, he said, had nothing to conceal as to their policy and he was somewhat surprised to hear that the London County Council proposed to introduce during the next Parliamentary session a Bill to enable them to acquire the businesses of the present metropolitan water companies. The policy of the Government in regard to a similar Bill which the London County Council had introduced last year was unmistakeably shown, and the Bill was rejected. The time during which he had been at the Local Government Board had, Mr. Long pointed out, not been sufficient to enable him to study the whole of the question of the London water-supply, but he had become convinced that the solution of the problem was one which would require much consideration and this he promised it should have. If as a result of his study of the question he found that a course could be satisfactorily and definitely settled on, and if the other members of the Government should agree with the solution which he proposed, it was his intention to introduce a Bill dealing with the subject, not during the next session, but in the session immediately succeeding it. With a matter of such complexity and one involving such vast interests it was obviously impossible for him to deal thoroughly during the next session and he therefore regretted that the London County Council had decided to introduce again during that session a Bill similar to that which the Government had found it necessary to oppose last summer. The Government held that the future management of the London water-supply should be placed in the hands of a statutory authority representing the whole area and not a part only of the area of Water London. In regard to the manner in which the representation should be given to any new Water Authority which might be formed the President of the Local Government Board declined to give any pledge, and as to the whole question he said that he would be glad to have the views of the metropolitan boroughs and of those extra-metropolitan authorities which are within the area of supply of the London water companies. Mr. Long will find when he studies the evidence given before Lord Llandaff's Commission that the outside authorities have already spoken with no uncertain voice on the matter. It is satisfactory to note that the President of the Local Government Board confessed that the more he looked at it the more he was impressed with the difficulties of the question and with the risk which the ratepayers would run if they purchased the present undertakings. Mr. Long is already known as an able and strong Minister. The fact that he has thus early in his new office realised that he has a difficult problem to settle is a matter for congratulation. The fact that he has at once definitely promised that he intends immediately to grapple with the difficulty is most satisfactory.

ARSENIC IN ARTIFICIAL MANURES.

DURING the past week our Laboratory Commissioners have undertaken the examination of a number of substances, including certain foods and drugs in common daily use, in the preparation of which sulphuric acid is used. It will be found after a few moments' consideration that a fairly lengthy list of articles of every-day use may thus be drawn up. The results are not yet ripe for publication, but we feel bound to divulge one important result since the disturbing announcement has this week been made by the analyst of Manchester that arsenic has been found in malt in a quantity equal to that found in glucose or malt substitutes. Moreover, arsenic was found in beers which were known to be brewed from malt and hops only. Now that this remarkable statement has been made we may say that we have found, in the course of the inquiry alluded to, artificial manures to be rich in arsenic easily soluble in water. This is hardly surprising, since the basis of artificial manures—namely, superphosphate of lime—is made by acting on ordinary bone ash with common oil of vitriol. The important point is that it has been established that plants to which arsenical manure is applied take up arsenic in their tissues. Cabbages and turnips gathered from fields manured with superphosphate have given unmistakeable evidence of the presence of arsenic. It is probable that arsenic accumulates in the soil which is constantly being dressed with superphosphate, so that plants raised on such soil would absorb arsenic and exercise an injurious effect on the health of man and animals. The question arises, therefore, may not the arsenic in malt be traceable to the somewhat large amount of arsenic inevitably present in artificial manures? This aspect of the subject is very serious and needs further inquiry. We shall return to it in a future issue, when we hope also to be able to record the results obtained in an examination of other more or less familiar articles, in which arsenic may possibly be introduced through the employment of impure sulphuric acid in the course of manufacture.

THE WORCESTER GENERAL INFIRMARY AND ITS ANÆSTHETIST.

WE learn from the *Worcestershire Chronicle* of Nov. 24th that at a meeting of the committee of the Worcester General Infirmary it was decided to discontinue the existing arrangement whereby the infirmary obtained the services of a special officer to undertake the administration of the anæsthetics. By the new arrangement the anæsthetics are to be administered by a member of the surgical staff. We believe it to be extremely important that every hospital in which a large number of operations are performed during the year should have an anæsthetist attached to the staff, and the step which has been taken at Worcester appears to us a retrograde one. From the report before us we gather that the gentleman who has been acting as anæsthetist is not a member of the staff of the infirmary but that he conducted the anæsthetics for the staff and received a small honorarium for his labours. The committee, as it appears, have in a fit of frugality determined to forego the luxury of possessing a paid anæsthetist and to employ the money in other ways. What ways these are do not concern us. The broad

question at issue is, Should a provincial hospital in which serious operations are constantly performed have to rely upon the services of any member of the staff who may be available for the conduct of the anæsthetics? We think not. Busy practitioners cannot give their time to the work, and no man is a satisfactory anæsthetist unless he is regularly employed in giving anæsthetics. Where there is no anæsthetist in a hospital the most responsible work of giving the anæsthetics is likely to devolve upon a junior house surgeon who may be without anything but the most limited experience. For, as we have recently pointed out, medical students too often receive no instruction in the giving of anæsthetics. The constantly recurring fatalities under chloroform in provincial as well as in London hospitals when inexperienced men are giving the anæsthetic support our contention that the staff of every hospital where much operating is done should comprise an anæsthetist. The poor and helpless who come to the hospitals have a right to have their lives made as safe from inexpertness or ignorance in an anæsthetist as in a surgeon or a physician.

THE CHAIR OF ANATOMY AT THE ROYAL ACADEMY.

THE vacancy in the chair of Anatomy at the Royal Academy of Arts which was caused by the death of Mr. William Anderson has been filled by the selection of Mr. Arthur Thomson, Professor of Human Anatomy in the University of Oxford. Professor Thomson is already known in a similar connexion owing to his holding the lectureship on anatomy in relation to art at the South Kensington Art Schools. He is also the author of a most admirable handbook of anatomy for art students. We are sure that all who know Professor Thomson will rejoice at the selection which has been made, and nowhere will more pleasure be felt than at Oxford, more especially in the medical school.

THE death is announced of Mr. Lionel E. Kay-Shuttleworth at San Remo. Mr. Kay-Shuttleworth, who was a Member of the Royal College of Surgeons of England, practised at San Remo, and also held the post of H.B.M. Vice-Consul there.

THE council of King's College, London, have elected Dr. Arthur Robinson, at present Lecturer on Anatomy in the Middlesex Hospital Medical School, to the Professorship of Anatomy in succession to the late Professor A. W. Hughes.

MR. WILLIAM VERNON, M.R.C.S. Eng., has been appointed Knight of Grace of the Order of the Hospital of St. John of Jerusalem in England.

THE Council of the Borough of Lambeth have unanimously increased the salary of their medical officer of health (Dr. J. Priestley) by £100 per annum.

PRINCE OF WALES'S HOSPITAL FUND FOR LONDON.

A MEETING of the general council of the Prince of Wales's Hospital Fund for London was held at Marlborough House on Dec. 18th, the PRINCE of WALES being in the chair, to receive the report of the distribution committee.

Lord ROTHSCHILD presented a statement of the financial position of the Fund up to Dec. 14th, which showed that up to that date the Fund had this year received £26,888 in annual subscriptions, £8523 from donations, undefined contributions, and newspaper collections, £6038 from investments, £1000 from a legacy by Madame Rosa Ann Deleglise, £1000 as an annual grant from the trustees of the London Parochial Charities for the maintenance of convalescent hospitals, and other smaller sums, making a total of £43,468 13s. 1d. He had been informed that the Fund would also receive £6000 from the League of Mercy this year, and he congratulated His Royal Highness upon such a substantial contribution, which showed His Royal Highness's wisdom and foresight in forming the league. Notwithstanding the absence of any appeal for 18 months until a few days ago the annual subscriptions were so far £1200 more this year than last. It was natural to expect some falling off in donations, which up to the present this year were £5000 less, after including those amounts mentioned in the executive committee's report. In addition there was a legacy of £3000 from Sir H. P. Turner Barron, which the Fund might expect to be paid in 1901.

The PRINCE of WALES moved, and the LORD MAYOR seconded, the adoption of the treasurer's report, which was agreed to.

Mr. H. C. SMITH presented the report of the executive committee, which recommended that the sum of £50,000 should be distributed this year, of which £49,000 should be awarded to hospitals and £1000 to convalescent homes. This is an increase of £8000 on the amount distributed last year, and last year there was an increase of £9000 over the previous year. The report also stated that the visiting committee was this year increased to 27 members. It consists of the following gentlemen:—Lord Lister, Sir William Mac Cormac, Bart., Sir Thomas Smith, Bart., Dr. W. S. Church, Mr. John Croft, Dr. A. B. Duffin, Mr. Christopher Heath, Mr. N. C. Macnamara, Dr. Pavy, Dr. E. C. Perry, Mr. T. Pickering Pick, Mr. H. Power, Mr. Alfred Willett, Viscount Duncannon, C.B., Lord Sandhurst, G.C.I.E., Sir Trevor Lawrence, Bart., Sir Henry Burdett, K.C.B., Mr. Thomas Burt, M.P., Mr. Charles Burt, Mr. J. G. Craggs, Mr. Frederick M. Fry, Mr. W. D. Hoare, Mr. H. J. King, Mr. James C. Marshall, Mr. J. Pierpoint Morgan, jun., Mr. Albert G. Sandeman, and Mr. Hugh C. Smith.

Lord LISTER presented the report of the distribution committee for the year 1900, and Mr. J. G. CRAGGS read the report of the convalescent homes committee.

The PRINCE of WALES moved the adoption of these reports and Sir WILLIAM MAC CORMAC seconded the motion. The reports were unanimously adopted.

A vote of thanks to the Prince of Wales for presiding was moved by the LORD MAYOR.

HIS ROYAL HIGHNESS, in replying, said: I am sure we all realise what a great thing it is for the Fund that the City of London should give us its hearty support. It gives me great pleasure to take this opportunity of thanking all those gentlemen who have assisted me in the great work of this institution—the members of the general council, the visitors to the hospitals, the executive committee, and the honorary officers. I am very glad Lord Duncannon has been able to take Sir Savile Crossley's place, and I cannot say how much we are indebted to Mr. Craggs for the labours he gives gratuitously to the Fund. We have all plenty to do, so I will not keep you any longer; but I think we may separate to-day with the feeling that the Fund is in a very prosperous state and that the interests of our great hospitals are still kept well before the public. I can only hope that as time goes on the Fund may increase in prosperity, so that the great object we had in view, that of placing the hospitals of this great metropolis on a thoroughly sound financial basis, may be accomplished.

The meeting then terminated.

THE SANITARY INSTITUTE: A DISCUSSION ON PLAGUE.

DR. F. TIDSWELL, principal assistant medical officer of the Government of New South Wales, opened an interesting discussion on plague at the Sanitary Institute on Dec. 12th by reading a paper entitled "Some Practical Aspects of the Plague at Sydney." A feature in the delivery of this paper which enabled the audience, which was not entirely composed of medical men, more clearly to understand Dr. Tidswell's views was the ample illustration of points in diagnosis and etiology by means of lantern slides. Dr. Tidswell commenced by giving a full description of the methods and means followed in the diagnosis and recognition of the

plague. The experience of the Public Health Department of Sydney was that when the first case of plague appeared it was successfully recognised, being fortunately a perfectly clear and straightforward one, and their subsequent experience was to the effect that whilst the great majority of cases could be diagnosed without hesitation they would now and then meet with one concerning which they could not form any decided opinion. It would, therefore, seem that the learnedly cautious attitude adopted by writers on plague was not only commendable from an academic standpoint but was also expressive of real practical difficulty, although this might, as in the epidemic at Sydney, be only of occasional occurrence. As a consequence of his experience Dr. Tidswell, for practical purposes, regarded plague in a way which if it never left him in doubt never led him into error; he mentally classified the cases into those which could be diagnosed off-hand and those which could not be safely diagnosed at all by purely clinical means. Some of the latter were cleared up by an appeal to bacteriology and some even that auxiliary failed to determine. Generally speaking, therefore, given a case presenting symptoms common to many acute fevers the only clinical manifestation which invested it with the specific character of plague was the existence of an acutely inflamed lymphatic gland in the groin, axilla, or neck. In the absence of a bubo the medical practitioner could be little more than suspicious or perhaps more or less convinced that the case was plague; the final adjudication if forthcoming at all was expressed by the bacteriologist or delivered only at the post-mortem table. With regard to the basis on which to form the suspicion just mentioned, Dr. Tidswell was inclined to think that in practice general indications were more to be depended upon than the elucidation of particular symptoms. Dr. Tidswell spent some time in emphasising the importance of recognising that the condition presented at any particular time by a plague patient could rarely be relied upon as a guide to the future progress of the illness. At nearly all stages up to established convalescence there was a liability to sudden and unexpected changes of serious or even fatal consequence. It was particularly in patients apparently slightly ill or progressing favourably that untoward complications with a fatal termination were apt to occur with startling abruptness, and Dr. Tidswell pointed out that the experience of the medical men in Sydney taught them to regard the issue of any case as uncertain until all constitutional symptoms had quite passed away. The case quoted by Dr. Tidswell in connexion with this point is such a striking example of the importance of this rule that it is worthy of record. The patient in question was a man who had been transferred from his house to an ambulance and from the ambulance to a launch upon a stretcher for conveyance under the charge of a trained attendant to the quarantine hospital. This man felt so far from ill that he absolutely refused to obey the nurse's order to remain lying down and sat up during the half-hour's run of the launch down the bay and appeared to be enjoying the trip. As the launch approached the landing jetty of the hospital the patient stood up, waved his arm, and dropped. The man was carried off the launch a corpse, and his death was doubtless due to failure of the heart consequent on the degeneration of its fibres occurring in plague.—Another extremely interesting contribution was a paper read by Mr. S. M. KAKA, medical officer of health of the City and Port of Karachi, the capital of Scinde. Mr. Kaka having exceptional opportunities of understanding the nature and extent of Hindu prejudices and native customs was enabled to illustrate his remarks by recording facts with which he had personal acquaintance. He related how the native, when removed to a hospital, believed he was taken away to be poisoned, how the sick bed of the plague-stricken man was surrounded by 30 or 40 relatives, how the native's practice of moving about houses with bare feet resulted in direct inoculation with the poison of plague, and how religious ceremonies compelled the mourners to remain with the corpse. Mr. Kaka, however, had one cheerful passage in his discourse, describing how the natives at Karachi had been educated up to taking kindly to the evacuation of infected districts, and the people having been thus educated formed in successive epidemics their own camps. It was not unusual to find something like 25,000 living in the camps, each sect in its own range of huts and supervised by responsible officers. Unfortunately, however, this preventive measure was not without its drawbacks because it was not possible to prevent the natives from taking their sick with them and as must naturally happen when large bodies of the people migrate disinfection of their clothing and other belongings was a hopeless task to undertake. Mr. Kaka, later informed the meeting that in regard to this latter point the people have learnt to destroy by fire for themselves whatever in their opinion had become infected.—A very instructive evening was concluded by a discussion, in which Dr. H. F. PARSONS, Mr. SHIRLEY MURPHY, and Dr. R. T. HEWLETT joined.

THE WAR IN SOUTH AFRICA.

THERE is still a good deal of enteric fever among the British troops serving in South Africa, as may be seen by an inspection of the returns of the sick and wounded, and it is to be feared that there will be a recrudescence of the disease during the hot weather. Enteric fever may be said to be endemic in the country, and the cause must have been sown broadcast during its late epidemic prevalence. Sufficient time has elapsed for the compilation of returns showing the numbers of those who have been attacked and who have died among the troops who had been inoculated as compared with those who had not. Some information as to the results of the comparison should soon be forthcoming and is anxiously awaited. Considering the number of troops that have gone out to South Africa, that for most of them it is the first year of their service there, and that so many of them were inoculated against typhoid fever on the voyage out, there should be an excellent basis for instituting a statistical comparison, especially as most of the troops were exposed to similar conditions.

Owing to the recent fighting in various directions which has taken place there has been a considerable augmentation of the list of wounds and casualties of a surgical nature. The wounded from General Clements's reverse at Nooitgedacht have all been brought to Pretoria and are doing well. The news of the increased activity of the Boers and their invasion of Cape Colony has come as a very disappointing surprise; still these occurrences cannot by themselves have any real effect on the ultimate issue. The facts remain as they were—namely, that we are in possession of the enemy's capital, that some 20,000 prisoners are in our hands, that Mr. Kruger, the late President of one State, has fled to Europe, that the late President of the other State is a fugitive, and that the seaboard of the Cape is open to us to replenish our supplies of men, food, and ammunition.

Where so much has been said about the past, present, and prospective aspects of this war we may, perhaps, be pardoned for referring to some of the impressions which we have derived from good information. We have talked to "all sorts and conditions of men"—regulars, volunteers, colonials, and medical officers—regarding this war. As might be expected, there is much variety of opinion (there is ample room for it) in regard to the events in South Africa; still these differences of opinion do not seem to be so great as might have been imagined. The impression which we have received from what we have heard is, perhaps, best expressed by saying that those who had the largest experience and apparently knew most about the subject said the least and were the least dogmatic in the expression of their views. Especially was this the case in the imputation of blame. With regard to one thing all agreed—namely, that only those who had actually seen the country and who had been present in the campaign were in a position to pronounce an opinion upon it or to estimate its difficulties. After all, what was the root of the whole matter? Unpreparedness on our part. Whereas the Boers had thoroughly matured their plans and were well prepared, we were not. But why should any ignorance or unpreparedness have existed on the part of the Government and the War Office at the beginning of the war? It is probable that, as a matter of fact, they were not altogether ignorant of the true state of things, although they were not, of course, informed to anything like the same extent that they were subsequently. To whatever political party the Government of this country may belong there is nothing which it strives so much to avoid as war, and we may be sure that no stone will be left unturned in order to avoid it. It must in fairness be admitted, we think, that the Government did really believe up to the last moment that war would be averted. Sir Redvers Buller was no doubt correct in having so

emphatically stated recently that the Government did not at once send an adequate force to the Cape lest it might be possibly accused of having actually brought about the war.

ASYLUM REPORTS.

Lanark District Asylum, Hartwood (Annual Report for 1899).—The population of the asylum during the year was 634 and comprised 344 males and 290 females; 307 patients were admitted during the year; of these 177 were males and 130 females. Of these 132—viz., 73 males and 59 females—were not first admissions. Dr. A. Campbell Clark, the medical superintendent, states in his report that the admission-rate was much in excess of that of the previous year. "The condition, mental and physical, of many of those admitted was very unsatisfactory, indeed many were hopeless from the first." The fact that so many cases are certified because of brain failure in late middle age or old age accounts for the large proportion of such cases in the asylum's admissions. The number of cases discharged as recovered during the year amounted to 89—viz., 51 males and 38 females, a total of 14 per cent. on the average number resident. This is a low rate, "but when one takes into account the nature of the admissions, the many senile sick and moribund cases, it is not surprising. While 17 patients died within a month of admission only one patient recovered." The deaths during the year amounted to 71—viz., 50 males and 21 females, or 11·2 per cent. of the average population. Of the deaths 2 were due to general tuberculosis, 9 to general paralysis, 13 to cerebral softenings and hæmorrhages, and 16 to cardiac disease with complications. "The death-rate has been abnormally high owing to the large number of broken-down, senile, and moribund cases admitted. ..... Many cases come to us which (in the Glasgow district) would find their way as emergency cases into the infirmaries or the large poor-house hospitals, and need not be certified as insane at all." Epidemics of influenza broke out in the spring and lasted till May, the lungs being affected seriously and frequently. Only one suicide occurred during the year, and the accidents have been slight and few.

The Asylum for Idiots, Earlswood, Red Hill, Surrey (Annual Report for 1899).—The average number of patients resident during the year was 546, and comprised 366 males and 180 females. During the year 60 patients were admitted, 53 of these being first admissions and seven being re-admissions. Dr. Charles Caldecott the medical superintendent, points out in his report that the name "Asylum for Idiots" hampers the institution in receiving patients, as so many of the parents think they only take "idiots," whereas children of imbecile and feeble-minded type are also accepted, and he strongly urges the board to seriously consider whether the title cannot be changed to some such one as "Training School for the Feeble-minded and Asylum for Idiots and Imbeciles," a title which would not only accurately designate the true nature of the institution but also reconcile parents to the idea of sending children for treatment and training. It is also recommended that the training period should be extended from five to seven years. During the year 51 patients were discharged as relieved, and of these 35 were males and 16 were females. 17 patients—viz., 10 males and 7 females—died during the year, or 3·1 per cent. of the average number resident, phthisis claiming a large number of victims. Some of the cases show a notable longevity. Thus there are two patients who have resided in the institution for over 50 years each, while there are 141 patients who have been inmates each for over 20 years. Outbreaks of scarlet fever and of influenza occurred during the year, keeping the general infirmary full all through the year. The board decided some time ago to have a small infectious block for such emergencies, but this has not yet been carried out, and Dr. Caldecott points out the extremely awkward predicament in which the institution would be placed should any epidemic of infectious disease arise among the inmates. Regarding the classification of the inmates on a medical and industrial basis Dr. Caldecott points out "that to allow the institution to do the greatest good, with no possible harm to our trainable pupils, we require the untrainable or custodial cases removed to a separate building which could come under the same administrative head. The various officials of the English idiot and imbecile institutions have been absolutely unanimous on this point." The work of the institution during the year has been arduous and conducted under many difficulties, the war in South Africa having claimed no less than 12 of the male staff who had been ordered to join the colours. The causes of imbecility and idiocy among the admissions were as follows: 13 cases were due to heredity, 2 to fevers during infancy, 10 were attributed to convulsions during teething, and 14 to shock or ill-health of the mother during pregnancy; 10 were epileptic on admission. In 16 cases the causation could not be traced. The board of management were able last year to announce that the heavy debt of £7879 incurred in 1897 had been liquidated. This happy result was attained through the exceptionally large amount of legacies (over £17,000) received this year. The purely charitable income—viz., annual subscriptions and donations—has not been quite equal to that of 1898, but the falling off has probably been due to the national efforts made for the sufferers from the war.

London County Asylum, Claybury, Essex (Annual Report for 1899).—The average number of patients resident during the year was 2482 and comprised 1035 males and 1447 females. During the year 556 cases were admitted, and of these 291 were males and 265 were females. Of the 556 admissions only about one-half of the cases suffering from a first attack of insanity were received within three months of the onset of their disease. Dr. Robert Jones, the medical superintendent, states in his report that the earlier such cases come under treatment the greater is the chance of recovery. "The chances of recovery diminish considerably and progressively, as the time before commencing treatment increases in length. Insanity also is more likely to be fatal in direct proportion to the delay which has taken place before commencing treatment." Of insanity associated with senile decay only 10 per cent. were over 60 years of age, as against 18 per cent. during the previous year. General paralysis has been found in 11 per cent. of the male admissions and in nearly 4 per cent. of the female. "There has been a high percentage of insanity from alcohol, and more than double the number of women than men have been admitted suffering from *mania a potâ*." It is also ascertained that women relapse into insanity from alcohol and are re-admitted with far greater frequency than men. Their weakened inhibition appears to be unable to withstand the slightest temptation, and Dr. Jones points out that the best treatment for such cases is that of long detention in inebriate homes, which naturally cannot apply to asylums from which patients are discharged when mentally fit. Previous attacks and hereditary influences were ascertained to be the most probable cause of insanity in 34 per cent. of the admissions. Several patients who were admitted had delusions that they were "hounded by Kruger's relatives" and that "Spion Kop" was hissed into their ears. During the year 197 patients were discharged as recovered, or 7·93 per cent. of the average number resident. Of these 197 recoveries 55 had been in residence from three to six months, 33 from six to nine months, 32 were under three months, while 31 were from one to two years. The deaths during the year amounted to 265—viz., 130 males and 135 females—or 10·68 per cent. of the average number resident. Of the deaths 46 were due to general paralysis of the insane, 20 to cardiac valvular disease, 39 to pneumonia, and 21 to phthisis. Of the 21 patients who died from phthisis it is probable that 15 contracted the disease in the asylum, having been in residence over two years. "Hitherto no special precautionary measures for isolating cases of phthisis have been adopted here, ... but the matter has been before the sub-committee. I suspect that phthisis is more frequent in asylums than statistics tend to demonstrate and that the tubercle bacillus may be present and unsuspected in cases of death which are certified to have been due to other causes." An outbreak of colitis has caused 33 deaths (16 males and 17 females), a proportion of over 12 per cent. of the total deaths. In July, 1899, all cases of colitis were isolated in the detached hospital, and the staff of the latter was increased by six attendants (male and female) on account of the extra nursing required. A female patient pregnant on admission was safely delivered of a daughter. Miss Margaret Orange, M.D. Brux., one of the assistant medical officers, received injuries from a patient and was granted leave of absence for six months on full pay.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6270 births and 3744 deaths were registered during the week ending Dec. 15th. The annual rate of mortality in these towns, which had been 18·0 and 17·7 per 1000 in the two preceding weeks, further declined last week to 16·8. In London the death-rate was equal to 16·5 per 1000, while it averaged 17·0 in the 32 large provincial towns. The lowest death-rates in these towns were 8·6 in Norwich, 11·2 in Oldham, 11·8 in Preston, and 11·9 in Croydon; the highest rates were 20·0 in Gateshead and in Liverpool, 21·3 in Bolton, 22·1 in Nottingham, and 22·2 in Manchester. The 3744 deaths in these towns included 328 which were referred to the principal zymotic diseases, against 356 and 363 in the two preceding weeks; of these, 77 resulted from diphtheria, 68 from whooping-cough, 56 from "fever" (principally enteric), 49 from measles, 42 from scarlet fever, and 34 from diarrhœa. No death from any of these diseases occurred last week in Norwich or in Huddersfield; in the other towns they caused the lowest death-rates in Plymouth, Cardiff, Halifax, and Gateshead, and the highest rates in Swansea, Nottingham, Bolton, Sheffield, and Sunderland. The greatest mortality from measles occurred in Swansea; from whooping-cough in Nottingham, Sheffield, and Sunderland; from "fever" in Preston; and from diarrhœa in Burnley. The mortality from scarlet fever showed no marked excess in any of the large towns. The 77 deaths from diphtheria included 20 in London, 12 in Sheffield, six in Leeds, and six in Leicester. No fatal case of small-pox was registered last week in any of the 33 towns, and only one small-pox patient remained under treatment on Saturday last, Dec. 15th, in the Metropolitan Asylums hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2617, against 2727 and 2687 on the two preceding Saturdays; 255 new cases were admitted during the week, against 246, 279, and 259 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 436 and 400 in the two preceding weeks, further declined last week to 349, and were 97 below the corrected average. The causes of 42, or 1·1 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Bradford, Leeds, and in sixteen other smaller towns. The largest proportions of uncertified deaths were registered in Leicester, Liverpool, Sheffield, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·7 and 20·7 per 1000 in the two preceding weeks, further declined to 19·3 during the week ending Dec. 15th, but showed an excess of 2·5 per 1000 over the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 16·6 in Leith and 18·1 in Edinburgh to 19·7 in Glasgow and in Greenock and 28·7 in Perth. The 596 deaths in these towns included 33 which were referred to whooping-cough, 16 to measles, 10 to diarrhœa, eight to scarlet fever, six to "fever," three to small-pox, and three to diphtheria. In all 79 deaths resulted from these principal zymotic diseases, against 89 and 87 in the two preceding weeks. These 79 deaths were equal to an annual rate of 2·6 per 1000, which was 1·1 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had been 42 and 31 in the two preceding weeks, rose again last week to 33, of which 27 occurred in Glasgow and three in Greenock. The deaths from measles, which had been eight, 12, and 15 in the three preceding weeks, further rose to 16 last week, and included nine in Aberdeen, four in Glasgow, and three in Edinburgh. The fatal cases of diarrhœa, which had been 20, 19, and 18 in the three preceding weeks, further declined last week to 10, of which four were registered in Glasgow and three in Aberdeen. The deaths from scarlet fever, which had been five and nine in the two preceding weeks, declined again to eight last week, and included four in Glasgow and two in Edinburgh. The deaths referred to different forms of "fever" which had been four in each of the two preceding weeks, increased last week to six, of which four occurred in Glasgow, where the three fatal cases of small-pox were also registered. The deaths referred to diseases of the respiratory organs in these towns, which had been 160 and 151 in the two preceding weeks, further decreased last week to 136, and showed a decline of 36 from the number in the corresponding period of last year. The causes of 17, or nearly 3 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·5 and 27·4 per 1000 in the two preceding weeks, declined again to 25·8 during the week ending Dec. 15th. During the past four weeks the death-rate in the city has averaged 26·0 per 1000, the rate during the same period being 17·3 in London and 19·7 in Edinburgh. The 173 deaths belonging to Dublin registered during the week under notice were 9 less than the number in the preceding week, and included 12 which were referred to the principal zymotic diseases, against 11 in each of the two preceding weeks; of these, seven resulted from whooping-cough, two from diarrhœa, one from measles, one from scarlet fever, and one from "fever." These 12 deaths were equal to an annual rate of 1·8 per 1000, the zymotic death-rate during the same period being 1·2 in London and 1·0 in Edinburgh. The deaths referred to whooping-cough, which had been six and four in the two preceding weeks, rose again last week to seven. The mortality both from "fever," and from diarrhœa was below that recorded in the preceding week. The 173 deaths in Dublin last week included 26 of infants under one year of age and 47 of persons aged upwards of 60 years; the deaths of infants showed a marked decline, while those of elderly persons slightly exceeded the number in the preceding week. Eight inquest cases and four deaths from violence were registered, and 59, or more than a third, of the deaths occurred in public institutions. The causes of 10, or nearly 6 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING NOVEMBER, 1900.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in each of the 43 sanitary areas of London. With regard to the notified cases of infectious diseases it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 10·0 per 1000 of the population, estimated at 4,589,129 persons in the middle of the year. In the three preceding months the rates had been 6·0, 8·7, and 10·7 per 1000 respectively. The rates were considerably below the average in Paddington, St. George Hanover-square, St. Martin-in-the-Fields, Clerkenwell, St. Olave Southwark, and Lee; while they showed the largest excess in Hammersmith, Fulham, St. Pancras, Stoke Newington, Limehouse, and Poplar sanitary areas. Three cases of small-pox were notified in London last month, and belonged respectively to Fulham, Chelsea, and Islington sanitary areas. Two small-pox patients were admitted into the Metropolitan Asylums hospitals during the month, and both remained under treatment on Saturday, Dec. 1st. The prevalence of scarlet fever showed a slight diminution from that in the preceding month; among the various sanitary areas this disease was proportionally most prevalent in Hammersmith, Stoke Newington, Strand, Poplar, Greenwich, and Lewisham. The Metropolitan Asylums hospitals contained 2659 scarlet fever patients at the end of November, against 1657, 1899, and 2569 at the end of the three preceding months; the weekly admissions averaged 259, against 152, 215, and 314 in the three preceding months. The prevalence of diphtheria showed a decline from that recorded in the preceding month; the greatest proportional prevalence of this disease occurred in Fulham, Stoke Newington, Poplar, Limehouse, Newington, and Lewisham sanitary areas. There were 1524 diphtheria patients under treatment in the Metropolitan Asylums hospitals at the end of November, against 1171, 1231, and 1458 at the end of the three preceding months; the weekly admissions averaged 185, against 142, 185, and 206 in the three preceding

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING NOVEMBER, 1900.

(Specially compiled for THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1900.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	4,589,129	3	1365	1068	—	570	5	29	486	—	3526	10·0	1	94	33	118	79	1	89	—	61	476	1·4	5697	16·8	151
West Districts.																										
Paddington	130,104	—	37	11	—	9	—	—	10	—	67	6·7	—	1	1	1	3	—	2	—	2	10	1·0	150	15·0	149
Kensington	173,603	—	32	40	—	15	—	2	18	—	107	8·0	—	—	1	4	3	—	1	—	1	10	0·8	184	13·8	200
Hammersmith	110,203	—	52	28	—	16	—	1	13	—	110	15·0	—	3	—	1	—	—	1	—	—	5	0·6	121	14·3	123
Fulham	136,393	1	54	71	—	8	—	2	22	—	158	15·1	—	3	2	2	3	—	1	—	4	15	1·4	145	13·9	121
Chelsea	98,715	1	13	23	—	14	—	—	7	—	58	7·6	—	—	—	3	3	—	2	—	2	10	1·3	111	15·0	120
St. George Hanover-square	81,133	—	14	12	—	5	—	—	1	—	32	5·1	—	—	—	1	1	1	1	—	1	5	0·8	88	14·1	156
Westminster	51,667	—	9	11	—	7	—	—	6	—	33	8·3	—	—	—	—	—	—	2	—	—	2	0·5	66	21·7	231
St. James Westminster	21,457	—	9	—	—	5	—	—	2	—	16	9·7	—	—	—	—	—	—	1	—	1	2	1·2	22	13·4	190
North Districts.																										
Marylebone	139,777	—	50	24	—	11	—	—	17	—	102	9·5	—	—	2	3	3	—	—	—	1	9	0·8	192	17·9	126
Hampstead	81,766	—	18	21	—	11	—	1	5	—	56	8·9	—	—	—	3	—	—	3	—	—	6	1·0	71	11·3	134
St. Pancras	245,451	—	80	54	—	36	—	—	22	—	242	12·8	—	3	—	6	3	—	9	—	4	25	1·3	313	16·6	146
Islington	351,541	1	135	64	—	35	—	3	31	—	269	10·0	1	3	2	10	10	—	7	—	5	28	1·4	414	15·4	125
Stoke Newington	35,718	—	17	18	—	4	—	—	1	—	40	14·6	—	1	—	4	—	—	1	—	—	6	2·2	31	11·3	67
Hackney	225,519	—	51	51	—	20	1	3	20	—	156	9·0	—	4	—	2	—	—	2	—	2	10	0·6	265	15·3	150
Central Districts.																										
St. Giles	56,870	—	14	5	—	4	—	—	3	—	26	9·2	—	—	—	3	1	—	—	—	—	4	1·4	49	17·3	75
St. Martin-in-the-Fields	11,865	—	4	—	—	2	—	—	—	—	6	6·6	—	—	—	—	—	—	1	—	—	1	1·1	12	13·2	222
Strand	22,748	—	12	3	—	1	—	—	—	—	16	9·2	—	—	—	—	—	—	—	—	1	1	0·6	41	23·5	69
Holborn	29,188	—	7	8	—	3	—	—	4	—	22	9·8	—	—	—	—	—	—	—	—	—	—	—	58	25·9	255
Clerkenwell	66,007	—	13	4	—	10	—	1	5	—	33	6·5	—	—	—	—	—	—	—	—	1	1	0·2	103	20·3	162
St. Luke	40,655	—	8	6	—	8	—	1	4	—	27	8·7	—	7	—	—	—	—	2	—	1	10	3·2	86	27·6	180
City of London	26,922	—	7	4	—	3	—	—	2	—	16	7·7	—	—	—	—	—	—	—	—	—	—	—	34	16·5	125
East Districts.																										
Shoreditch	120,641	—	28	21	—	20	1	—	21	—	91	9·8	—	10	1	5	4	—	2	—	3	25	2·7	213	23·0	226
Bethnal Green	128,831	—	23	20	—	24	—	1	24	—	92	9·3	—	2	1	1	—	—	4	—	4	12	1·2	214	21·7	177
Whitechapel	82,220	—	17	9	—	13	—	—	14	—	53	8·4	—	—	2	—	—	—	3	—	1	6	1·0	106	16·8	127
St. George-in-the-East	48,875	—	2	4	—	5	—	2	13	—	26	6·9	—	—	—	3	1	—	1	—	2	7	1·9	92	24·5	118
Limehouse	58,944	—	13	20	—	11	—	—	18	—	62	13·7	—	12	1	3	1	—	3	—	—	20	4·4	121	26·8	173
Mile End Old Town	113,781	—	26	21	—	14	—	1	15	—	75	8·6	—	1	1	4	1	—	2	—	2	11	1·3	147	16·8	133
Poplar	170,968	—	77	111	—	29	1	1	26	—	245	18·7	—	6	1	12	3	—	2	—	3	27	2·1	256	19·5	194
South Districts.																										
St. Saviour Southwark	23,854	—	5	3	—	7	—	—	—	—	15	8·2	—	2	—	—	1	—	1	—	—	4	2·2	48	26·2	222
St. George Southwark	60,597	—	16	15	—	14	1	1	7	—	54	11·6	—	3	—	4	5	—	3	—	—	15	3·2	130	28·0	250
Newington	125,138	—	40	39	—	12	—	2	15	—	108	11·3	—	3	3	5	2	—	3	—	1	17	1·8	211	22·0	217
St. Olave Southwark	10,909	—	—	—	—	1	—	—	1	—	2	2·4	—	—	—	—	—	—	—	—	—	—	—	13	15·5	107
Bermondsey	85,920	—	27	24	—	16	—	1	6	—	74	11·2	—	8	1	5	3	—	1	—	2	20	3·0	146	22·2	215
Rotherhithe	41,246	—	4	8	—	4	—	1	8	—	25	7·9	—	—	—	2	2	—	2	—	—	6	1·9	59	18·6	227
Lambeth	312,152	—	88	61	—	25	—	—	25	—	199	8·3	—	—	5	3	11	—	5	—	3	27	1·1	379	15·8	138
Battersea	178,100	—	50	19	—	22	—	—	18	—	109	8·0	—	7	1	2	5	—	3	—	2	20	1·5	182	13·3	146
Wandsworth	217,004	—	78	45	—	16	—	3	18	—	160	9·6	—	2	4	6	2	—	5	—	1	20	1·2	227	13·6	135
Camberwell	268,457	—	75	83	—	15	—	—	21	—	194	9·4	—	1	1	11	1	—	4	—	3	21	1·0	325	15·8	161
Greenwich	184,582	—	85	43	—	20	—	1	20	—	169	11·9	—	8	2	3	2	—	5	—	4	24	1·7	210	14·8	109
Lewisham (excluding Penge)	93,548	—	44	32	—	4	—	1	6	—	87	12·1	—	2	—	3	2	—	2	—	2	11	1·5	87	12·1	71
Woolwich	41,600	—	4	8	—	6	—	—	4	—	22	6·9	—	—	1	2	1	—	1	—	1	6	1·9	49	15·4	143
Lee	40,722	—	10	6	—	2	—	—	—	—	18	5·8	—	—	—	—	—	—	—	—	1	1	0·3	44	14·1	66
Plumstead	65,568	—	17	18	—	10	1	—	5	—	51	10·1	—	2	—	1	2	—	1	—	—	6	1·2	62	12·3	101
Port of London	—	—	—	—	—	3	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 22 cases of membranous croup.

† Including deaths from membranous croup.

NOTE.—The changes made under the London Government Act (1899) are not taken into account until the commencement of next year.

months. The prevalence of enteric fever showed a continued increase over that recorded in recent months; among the various sanitary areas this disease was proportionally most prevalent in St. James Westminster, St. Pancras, St. Luke, Limehouse, St. Saviour Southwark, and St. George Southwark. The number of enteric fever patients in the Metropolitan Asylums hospitals, which had been 170, 329, and 444 at the end of the three preceding months, had declined again to 436 at the end of November; the weekly admissions averaged 61, against 32, 69, and 61 in the three preceding months. Erysipelas was proportionally most prevalent in Shoreditch, Bethnal Green, Whitechapel, St. George-in-the-East, Limehouse, and Rotherhithe sanitary areas. The 29 cases of puerperal fever included three in Islington, three in Hackney, three in Wandsworth, two in Kensington, two in Fulham, two in St. George-in-the-East, and two in Newington sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas of the metropolis, the deaths occurring in the public institutions of London having been distributed among the various sanitary areas in which the patients had previously resided. During the four weeks ending Dec. 1st the deaths of 5897 persons belonging to London were registered, equal to an annual rate of 16·8 per 1000, against 19·4, 16·5, and 15·3 per 1000 in the three preceding months. The lowest death-rates last month in the various sanitary areas were 11·3 in Hampstead and in Stoke Newington, 12·1 in Lewisham, 12·3 in Plumstead, 13·2 in St. Martin-in-the-Fields, 13·3 in Battersea, and 13·4 in St. James Westminster; the highest rates were 24·5 in St. George-in-the-East, 25·9 in Holborn, 26·2 in St. Saviour Southwark, 26·8 in Limehouse, 27·6 in St. Luke, and 28·0 in St. George Southwark. During the four weeks of November 476 deaths were referred to the principal zymotic diseases; of these, one resulted from small-pox, 94 from measles, 33 from scarlet fever, 118 from diphtheria, 79 from whooping-cough, one from typhus fever, 89 from enteric fever, and 61 from diarrhœa. No death from any of these diseases occurred last month in Holborn, City of London, or St. Olave Southwark; in the other sanitary areas they caused the lowest death-rates in Hammersmith, Westminster, Hackney, Strand, Clerkenwell, and Lee; and the highest rates in Stoke Newington, St. Luke, Shoreditch, Limehouse, St. Saviour Southwark, St. George Southwark, and Bermondsey. The fatal case of small-pox was that of a person belonging to Islington sanitary area. The 94 deaths from measles showed a decline of 110 from the corrected average; this disease was proportionally most fatal in St. Luke, Shoreditch, Limehouse, St. Saviour Southwark, St. George Southwark, and Bermondsey. The fatal cases of scarlet fever were only 33, against an average of 86 in the corresponding periods of the 10 preceding years; the greatest proportional mortality from this disease occurred in Fulham, Marylebone, Whitechapel, Newington, Lambeth, and Wandsworth sanitary areas. The 118 deaths from diphtheria were 97 below the corrected average; among the various sanitary areas this disease was proportionally most fatal in Stoke Newington, St. Giles, St. George-in-the-East, Poplar, St. George Southwark, and Bermondsey. The 79 fatal cases of whooping-cough were 28 below the average number in the corresponding periods of the 10 preceding years; this disease showed the highest proportional fatality in Shoreditch, St. Saviour Southwark, St. George Southwark, Bermondsey, Rotherhithe, and Lambeth. The 90 deaths referred to "fever" were equal to the corrected average; among the various sanitary areas the "fever" death-rate was highest in Westminster, Hampstead, St. Luke, Limehouse, St. George Southwark, and Rotherhithe. The 61 fatal cases of diarrhœa were slightly below the average number in the corresponding periods of the 10 preceding years; this disease was proportionally most fatal in Fulham, St. James Westminster, Strand, Bethnal Green, and St. George-in-the-East. In conclusion, it may be stated that the aggregate mortality from these principal zymotic diseases in London during November was nearly 38 per cent. below the average.

Infant mortality in London last month, measured by the proportion of deaths of children under one year of age to registered births, was equal to 151 per 1000. The lowest rates of infant mortality were recorded in Stoke Newington, St. Giles, Strand, Lewisham, Lee, and Plumstead; and the highest rates in Westminster, St. Martin-in-the-Fields, Holborn, Shoreditch, St. Saviour Southwark, St. George Southwark, and Rotherhithe sanitary areas.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet-Surgeons: J. O'B. Williams to the Royal Marines, Plymouth, and R. Bentham to the *Magnificent*. Surgeons: H. C. Adams, W. E. Gribbell, and H. V. Wells to the *Vivid*; L. Lindop, J. Whelan, and J. Verdon to the *Duke of Wellington*; C. L. W. Bunton to the *Forte*; S. Croneen to the *Raven*; and J. M. H. Conway, A. J. Sheldon, and C. R. Rickard to the *Wildfire*.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel M. W. Kerin has arrived at Colchester for duty. Major S. O. Stuart is instructed to proceed to Woolwich for duty. Lieutenant P. C. Douglass has joined at Woolwich. Majors J. C. Weir and L. P. Mumby are appointed Sanitary Officers, Punjab Command. Lieutenant W. S. Crosthwaite is posted to the Station Hospital, Shorncliffe for duty.

The undermentioned surgeons-on-probation to be Lieutenants:—Henry James McGrigor, William Richard Power Goodwin, John Handfield Brunskill, Arthur Cameron Duffey, Arthur William Gibson, Charles Duncan Myles, Rochford Noel Hunt, Henry Edward Joseph Alphonsus Howley, Ralph Frankland Morris Fawcett, William Lawrence Steele, Hugh Allan Davidson, Thomas Finucane, John Weir West, William Riach, Herbert Raymond Bateman, Horace George Pinches, Thomas White, James Crawford Kennedy, Arthur Ruscombe Crane Parsons, John Burton Cautley, William Moore Bell Sparkes, Samuel Boylan Smith, Eyre William Powell, and John Jones.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Major G. R. T. Phillips to be Surgeon-Lieutenant-Colonel. Surgeon-Captain Thomas W. J. Allen having resigned his appointment in the Volunteers ceases to belong to the Army Medical Reserve.

MILITIA MEDICAL STAFF CORPS.

Surgeon-Captain Adam Robert Hamilton Oakley, from the 1st Volunteer Battalion the Essex Regiment, to be Surgeon-Captain. Captain William Vernor Sinclair, from the 3rd Volunteer Battalion the Devonshire Regiment, to be Surgeon-Lieutenant. Surgeon-Lieutenant William Edward Manderson Corbett, from the 2nd Volunteer Battalion the Devonshire Regiment, to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 1st Gloucestershire: Surgeon-Major J. H. Wathen resigns his commission, with permission to retain his rank and to wear the uniform of the corps on retirement. *Royal Engineers:* 1st London: The undermentioned officer resigns his commission: Surgeon-Captain S. R. Dyer. *Rifle:* 8th (Scottish) Volunteer Battalion the King's (Liverpool Regiment): Charles John Macalister, formerly Surgeon-Captain, 2nd Volunteer Battalion, to be Surgeon-Captain. 2nd Volunteer Battalion the East Surrey Regiment: Brigade-Surgeon-Lieutenant-Colonel E. Pocklington resigns his commission, with permission to retain his rank and to wear the uniform of the battalion on retirement, vacating thereby his appointment as Senior Medical Officer to the Surrey Volunteer Infantry Brigade. 2nd Volunteer Battalion the Duke of Wellington's (West Riding Regiment): The undermentioned Surgeon-Lieutenants to be Surgeon-Captains: L. P. Demetriadi and H. W. Williams. 2nd Volunteer Battalion the Durham Light Infantry: William Bratton to be Surgeon-Lieutenant.

TRANSVAAL WAR NOTES.

Colonel W. H. Otter, Commander Royal Canadian Regiment, in a letter to Major-General the Hon. Herbert Eaton, the secretary of the Colonial Troops Entertainment Committee, has expressed his heartfelt appreciation and that of the non-commissioned officers and men of the Royal Canadian regiment for the care and kindness shown to them. The committee are much in need of further subscriptions. One of the principal firms in the city has promised £1000 and a nobleman has promised £500 towards the funds, conditionally on other subscriptions being received for equivalent amounts or something approaching them.

On Dec. 7th the Mayor of Cardiff (Mr. T. Andrews, J.P.) entertained Mr. Lynn Thomas, F.R.C.S. Eng., at a banquet on the occasion of his safe return from South Africa, and also to acknowledge the great services voluntarily rendered by him in connexion with the Welsh hospital. Amongst

those present were Lieutenant-General Sir James Hills-Johnes, V.C., G.C.B., Dr. Edwards, and Canon Thompson. After the dinner the Mayor presented Mr. Lynn Thomas with a silver salver which bore an inscription recording the recipient's services in South Africa.—At a special meeting of the committee of the Cardiff Infirmary held on Dec. 14th the resolution passed by the governor on Dec. 7th requesting Mr. Lynn Thomas, F.R.C.S. Eng., to accept the full position of honorary surgeon to the institution in appreciation of the valuable services rendered by him in connexion with the Welsh Hospital in South Africa was unanimously confirmed on the motion of the chairman (Major-General Lee).

The *Canada* which is due at Southampton about Jan. 2nd has on board Lord and Lady Roberts and the Misses Roberts and the following members of the medical profession:—Indian Medical Service: Major W. R. Edwards. Royal Army Medical Corps: Major H. B. Mathias, Civil Surgeon C. Franks, and Civil Surgeon A. Ricketts. The following invalids are also on board:—Royal Army Medical Corps: Major E. M. Hassard, Captain H. W. H. O'Reilly, Lieutenant S. G. Butler, Lieutenant R. S. Rodger, and Civil Surgeon F. W. Robinson.

Civil Surgeon Englebach, reported missing at Nooitgedacht on Dec. 13th, was killed in action.

Civil Surgeon B. A. Nicoll left Cape Town for England in the *Avoca* on Dec. 9th.

The following officers have been discharged from hospital to duty: Major G. A. Wade, R.A.M.C., Civil Surgeons R. Williams, G. L. Hayden, Ed. H. Worth, A. Young, Lieutenant N. J. C. Rutherford, R.A.M.C., and Civil Surgeon D. W. Johnson.

Civil Surgeon R. M. Cowie, reported dangerously ill at Wynberg on Dec. 15th, is now reported to be improving.

A TRIBUTE TO MEDICAL GALLANTRY.

A Reuter's correspondent in a realistic account of the action in which Colonel Le Gallais was killed published in the *Times* of Dec. 17th concludes as follows: "It is not, luckily, an uncommon thing to chronicle the gallantry of the Medical Corps. Captain Surgeon Naismith behaved throughout the whole day with the utmost coolness. He tended the wounded wherever he found them, regardless of bullets, and apparently unconscious of them. Captain Newmarsh, an Australian doctor, volunteered to stay with the wounded at the farmhouse. The Boers behaved very kindly and put a sentry on the house with orders to allow no one to approach. When he left Captain Newmarsh presented them with some provisions in return for their kindness."

DEATHS IN THE SERVICES.

Surgeon-General George Vernon Currie, I.M.S., late 10th Bengal Lancers, recently at Eastbourne-terrace, Hyde Park, W., aged 72 years. He served in the Indian Mutiny campaign against the Mohmunds on the North-west Frontier in 1858, in the Eusofzai and Swat Expedition of 1866, and in the Afghan War of 1879.

Correspondence.

"Audi alteram partem."

"ISOLATION HOSPITALS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 15th, p. 1759, Mr. E. D. Marriott gives certain figures and draws a particular lesson from them, the lesson being that—"judged by results"—he has "brought the failure of the isolation hospital, so far as scarlet fever is concerned, to an absolute demonstration." Now, Sirs, I think, when the figures he has given are carefully examined they will be seen to prove no such "absolute demonstration." All his figures are taken from the "returns" of medical officers of health for some of the years between 1891 and 1898, some time during which period an epidemic of scarlet fever was prevalent in all the large towns of England. He also gives the "returns" for Nottingham and Bolton in detail from 1883 and 1879 respectively, until 1899, the former town commencing isolation in 1885 and the latter in 1884; and he claims that these "returns" supply the "most complete object lesson" that increase of scarlet fever followed the opening of isolation hospitals. Now, if the returns from these two towns be drawn up in the form of a chart, such as is given below, it will be seen that such is not the case, but that there has been a rise and fall in the number of scarlet fever notifications, which rise and fall takes place in well-known and recognised periodic waves, each wave occupying somewhere about 10 years.

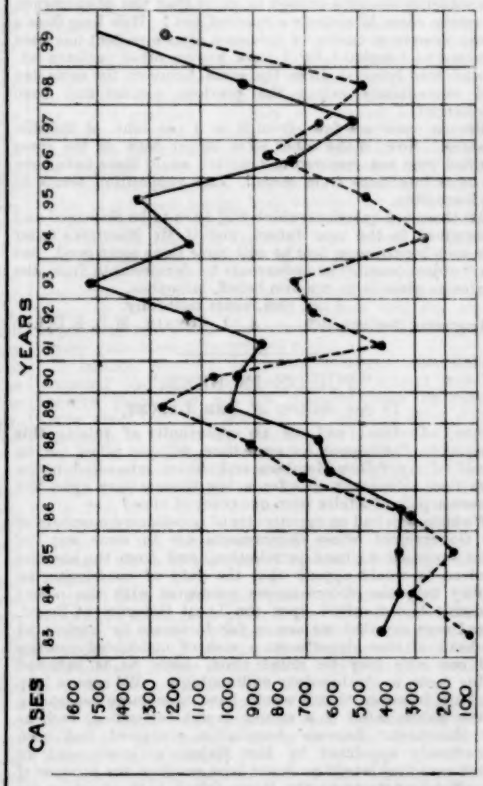

Chart showing the rise and fall of cases of scarlet fever notified in Nottingham (plain line) and Bolton (broken line).

Now, by comparison with the rises in the other large towns mentioned it will be seen that the maximum in them took place about the same time as in the two towns given as "object lessons." Fortunately for Mr. Marriott's deductions the towns taken to demonstrate the "complete object lesson" opened their isolation hospitals when the wave was at its lowest, and were consequently followed—not in the next year, however—by a rise. Mr. Marriott wishes to show that the rise was due to the aggregation of the cases; in fact, he says that "the opening of the hospital [referring to Bolton] was signalised by an increase in the number of notified cases too gradual to leave us in doubt as to the cause." I think that he misreads his information and thus draws a very incorrect lesson. If the towns named had delayed the opening of their hospitals for four or five years such openings would then have been followed by an immediate and considerable fall and then Mr. Marriott could not have deduced his "object lesson." Can he prove that if the Nottingham and Bolton hospitals had not been opened these rises would not have occurred, or that they would have been smaller? and how does he explain the fall which followed the rise? Would not the rises have been a good deal higher if those hospitals had not been opened? Were, in fact, the rises not due to natural and uninterpreted causes perfectly independent of aggregation?

Mr. Marriott further states that "discharged patients are *all* a source of danger." Some of them are decidedly dangerous, but certainly not all. The dangerous ones, from some 2 to 5 per cent., are so either in themselves or merely as carriers of infection from others. It seems to me that the danger does not prove in any way the failure of

aggregation, as Mr. Marriott implies, but rather that we are yet unacquainted with the nature of scarlet fever infection and the manner of its conveyance by these dangerous individuals, for return cases occur amongst patients discharged early as well as amongst those detained for a lengthy period; amongst patients having discharges (nasal and aural) and such as have none; amongst those discharged from acute as well as from convalescent wards. Again, is the evidence absolute enough to prove that the phenomenon of return cases is entirely a hospital one? How long does a house remain a centre of infection after a patient has been removed to hospital? for I have known other patients admitted into hospital from the same house on the same day and immediately before the previous patient had been discharged.

Return cases are few—from 2 to 5 per cent. of the discharges. Now, if the other 95 to 98 per cent. of the cases notified were not removed to hospital would there have been no other infections from them? This supposition seems to me incredible.

All these are questions which will have to be discussed and determined in the near future, and if Mr. Marriott's letter sets such inquiries on foot he will have done some good, but the "object lesson" he endeavours to demonstrate from the figures he gives is, in my firm belief, fallacious.

I am, Sirs, yours faithfully,

Manchester, Dec. 16th, 1900. A. J. TONKIN, M.B. R.U.I.

"POISON IN BEER."

To the Editors of THE LANCET.

SIRS,—As there will be no opportunity of raising this question in Parliament for some time, will you allow me, on behalf of my fellow-Members and others interested in the Pure Beer movement, to offer a few observations upon the present aspect of affairs from our point of view?

We have now had an opportunity of questioning members of the Government whose departments are in some way or other supposed to have jurisdiction, and from the answers received it would appear that the duty of conducting an inquiry into the circumstances connected with the recent epidemic has devolved upon the Local Government Board. Here I may say that we are so far fortunate in having at the head of that department a man of undoubted courage and one who may be relied upon, once he is satisfied of his facts, to do his duty unflinchingly. We cannot help thinking, however, that it would have been more reassuring to the public mind if a strong expert committee, such as the Manchester Brewers' Association organised, had been immediately appointed by Her Majesty's Government, in which case they would no doubt have retained the services of the official analysts to the Home Office, both of whom are now members of the Brewers' Committee. In France such an epidemic as this would be at once investigated by the Council of Hygiene, or in Germany by the Imperial Board of Health.

In this country, wherever the interest of the beer-drinker crops up it is difficult to find under which thimble the pea really is, but to us it is very clear where the actual responsibility lies. When the advocates for a definition of beer withdrew their Bill in 1896 the Chancellor of the Exchequer promised to appoint a committee, which was subsequently instructed to report "whether legislation is required to prevent the use of deleterious substances in the manufacture of beer." The majority of this committee (a departmental not a parliamentary committee) reported that "the Treasury are empowered to prohibit the use in the manufacture of beer of any substance or liquor of a noxious or detrimental nature. It is the duty of the chemists employed in the Government Laboratory to keep a vigilant watch in this respect over all beer brewed and sold, and they have ample opportunities for so doing." Yesterday we were told by the Secretary to the Treasury that the power alluded to was conferred upon the Treasury by the Inland Revenue Act, but that "the duty of providing proper securities for the wholesomeness of beer, like other articles of food, is placed by law on the local authorities subject, if necessary, to the Local Government Board or Board of Agriculture," and that therefore "the Treasury had not exercised this power." A pretty puzzle this. Between the Treasury, the Inland Revenue chemists, the local authorities, the Local Government Board, and the Board of Agriculture, where is the beer-drinker?

Although the Inland Revenue authorities know what firms use substitutes they have resolutely declined to give that information to Parliament and the public. On this point the majority of the committee expressed their opinion that it would be "an inquisitorial interference with business of a rather invidious kind"; but as their report was practically a justification of the use of these substitutes, it is difficult to see how it would be "invidious" to state who used them. No, Sirs, the Inland Revenue officials consider it their duty to see that as much liquor as possible pays duty, and the brewers who do not confine themselves to malt and hops say that the public like the substitutes, although they have not sufficient confidence in their compounds to call them by any other name than "beer."

It is quite likely that the policy pursued by the Inland Revenue may yet have the opposite result to that anticipated. The present scare has already brought about a considerable diminution in the consumption of beer, to the consequent detriment of the revenue. We believe that the more people are satisfied as to the purity of beer, the more generally they will drink it and the more will the revenue be augmented. Therefore, to our minds, everything points to the desirability of an early enactment defining "beer," and extending to it the same principle that Parliament has already sanctioned with respect to other important articles of diet. If these objects are to be secured it will be necessary, unless the Government are wise enough to take the matter into their own hands, to have a powerful organisation in order to focus the great volume of public feeling which exists throughout the country and of which ample evidence is afforded by the stream of resolutions of public bodies, as well as private correspondents, which pours in upon me every day.

No one who has read the minority report of the committee above referred to can say that this calamity has come upon the Government and the people without warning. We only hope that the sickness and death amongst our fellow-countrymen in the North, sad as it is, will have the result of bringing about a much-needed reform, but this can never be effected until the masses of the people realise and impress unmistakably upon the Government how vitally their interests are concerned with the purity of the national beverage.—I am, Sirs, yours faithfully,

CUTHBERT QUILTER.

House of Commons, Dec. 14th, 1900.

A GERMAN CRITICISM OF THE PRESENT STATE OF OTOLOGY IN GREAT BRITAIN.

To the Editors of THE LANCET.

SIRS,—The debt of gratitude which we owe to our English colleagues, who were the first to promote the study of otology on a sound scientific basis, will always remain in our memory. Toynbee founded the pathological anatomy of the ear and was the first to build up those principles which stamped otology as a science. Nevertheless, his countrymen neglected to gather in the fruits of the seed he had sown and so the leadership of scientific progress in otology passed into the hands of other nations.

However, the growth of otological works in England during the last ten years points to the fact that fresh endeavours are being made to recover lost ground. Still, those who make a point of systematically reading the English literature are often astonished at the apparently almost complete ignorance of all foreign writings, and I really am unable to account for this remarkable fact. It may perhaps be due to their ignorance of foreign languages, so often noticeable in our English colleagues, which prevents them from making use of foreign literature, or perhaps owing to their extensive private practice they have not sufficient spare time to peruse the German scientific writings. This fault alone cannot help giving the experienced reader the impression that the work is not up to date. Many otological writings are published by the English press which no German journal would accept because their contents are already out of date, and many therapeutical suggestions are published as *new* which every aural surgeon in Germany has long been acquainted with. If our desire to enlighten our English colleagues on this question is to be of any practical value we must above all prove the accuracy of our assertions. In this I limit myself to a few striking examples. Although the question with regard to ligaturing the jugular vein in cases of sinus

phlebitis ex otitide is still under discussion, yet it is generally acknowledged that for specified cases the ligaturing of the vena jugularis interna is an important step forward in the treatment of sinus thrombosis. Further, all German otologists are now unanimously of the opinion that in cases where the diagnosis of sinus thrombosis has been made with certainty the sinus should be laid open and the infected thrombus removed. To Zanfal (Prague) are we indebted for having suggested this operation. As long ago as 1880 he recommended the opening of the diseased sinus as well as the ligaturing of the vena jugularis interna,[1] and in 1884[2] he was the first to perform the operation, or at least to wash out and drain a sinus already opened by ulceration.

In 1886, six years after Zanfal, Horsley[3] suggested the same operative treatment, but without even mentioning Zanfal's name, showing that he was in complete ignorance of the well-known professor of otology in Prague. This operation performed two years later (1888) by Horsley himself ended fatally. That this operation has become popular through the favourable results obtained by our English colleagues, Lane[4] and Ballance,[5] has nothing to do with the question of priority.

As a further proof of the accuracy of the above stated assertions let us take Macewen's well-known book "Pyogenic Infective Diseases of the Brain and Spinal Cord, Meningitis, Abscess of the Brain, Infective Sinus Thrombosis," which was published in 1893, and was received in Germany not only by otologists but by general surgeons and neurologists as well with universal approbation. The large mass of carefully observed clinical material, the infinite pains taken in the working out of the anatomy, the almost too surprisingly successful results from operation which opened up a hitherto undreamed of field in the treatment of intracranial complications are tokens of the great scientific value of this book. Nevertheless, the book shows evidence of its author's very superficial knowledge of the German literature on the subject, only those writings translated into English being apparently known to him. Also the promise made in the preface to publish later an appendix of the literature on the subject has not yet been fulfilled. The fact that much is considered by Macewen as being *new* which in reality has long been known can only be explained by his lack of knowledge of the literature, and this is especially brought out in his description of the mastoid operation.

As regards the indications for this operation Macewen still holds the same views as Schwartze did 20 years before him. If he had referred to the above-mentioned author he would have been aware that Schwartze had considerably modified his earlier views and that he now pointed out cases where, in opposition to the previous simple opening of the antrum, he recommended the so-called "radical" operation (*Totalaufmeisselung der Mittelohrraume*) as being more suitable and in which the healing would be more rapid. The operation which Macewen advocates is in many cases insufficient and has now become obsolete. The extensive and more recent literature on this subject which the introduction of the more radical methods of operation (Küster, Zanfal, Stacke, &c.) gave rise to, and especially the chapter on "Operations" in Schwartze's book on the Diseases of the Ear (Schwartze's Handbook, Band ii., 1892), are, if we may judge from what he has written on the subject, apparently unknown to him.

The paper by Ballance above referred to shows the same want of familiarity with the current literature and may be taken as an example from the most recent publications to again point out the justness of my previous assertions. The title of this paper is as follows: "The Conduct of the Mastoid Operation for the Cure of Chronic Purulent Otorrhœa with Special Reference to the Immediate Healing of the Cavity in the Bone left by the Operation by means of Epithelial Grafts."[6] The author describes in this paper the "radical" operation as a "description of my *own* plan of operation which has been developed from no inconsiderable experience." Instead of being contented with a single operation which has usually been considered sufficient he divides his operation into two parts—(1) the operation for the removal of the disease and (2) the operation for the healing of the wound. The description of *his* first operation differs only in unimportant details—viz., the use of specially constructed "burrs" driven by an electro-motor—from the operation which has been in vogue in Germany during the last ten years. The second operation which is carried out, in the case of children after an interval of a week, in adults in two or three weeks, after the first operation consists in covering in the most painstaking manner the newly granulating surface of the bony cavity with "skin grafts." The only important difference in his method to that usually employed in Germany is that he makes a point of dividing the mastoid operation into two parts, whereas in this country the "skin-grafting" is only undertaken as a secondary operation in special cases. Although at the first cursory glance the favourable results of his cases seem to prove that his proposed method has met with success, still we do not feel disposed to attach very great weight to his statistics owing to the cases having been watched for much too short a period. Of what value is it when in a series of cases he only tells us that the discharge has ceased if nothing be said as regards the condition of the surface of the cavity, as to whether the cavity be covered with opaque or glistening epithelium, or whether on any part of its surface there be crusts or not? For any aural surgeon who has had any experience knows that the cessation of the discharge by no means guarantees a permanent cure.

I cannot, however, in principle agree with Ballance's proposed operation because it is not always possible to remove thoroughly all the diseased bone by operation. Quite apart from the fact that our hand is often stayed in operation in order not to damage the function of hearing or the facial nerve, and also that carious spots on the promontory, on the floor of the cavum tympani, and in the region of the bony Eustachian tube are not amenable to operation, it is often not possible for the eye to distinguish between the sound and diseased area of bone, so that later in the course of the after-treatment parts often prove to be diseased which at the time of operation were supposed to be healthy.

Now I come to the main point of the subject. Although the author in his description of the "first operation" makes no mention whatever, with the exception of a short reference to Stacke's paper, to the extensive German writings bearing on this subject, it may be that he is only giving his countrymen a paper on a subject well known to everyone. But his description of the "second operation" cannot help impressing the reader with the idea that the method of "skin-grafting" the mastoid cavity in order to accelerate the healing was devised by him.

He is evidently unaware that several German authors have prior claims to this method. Therefore I may as well point out here that, for instance, Siebenmann,[7] as early as 1893, recommended this method (Thiersch's epithelial skin-grafts) after operating on cavities containing cholesteatoma, and that before this several others had already made the same experiment elsewhere. I think that the foregoing example will be sufficient to convince our English colleagues of the justness of my previous remarks. Our English-speaking colleagues on the other side of the Atlantic have been far quicker in obtaining knowledge and dexterity in theory and practice from the sources of scientific progress themselves, with what result can be seen from their recent literature, the excellence of which may be taken as a sure sign of their advancing scientific knowledge.

I am, Sirs, yours faithfully,

Professor Dr. GRUNERT.

Assistant Surgeon to the Clinic for Diseases of the Ear in the Royal University of Halle a/C (Professor H. Schwartze).

[1] Prager Medicinische Wochenschrift, 1880, pp. 516-517.
[2] Ibid, p. 474.
[3] St. Thomas's Hospital Reports, vol. xviii.
[4] Brit. Med. Jour., May 4th, 1889, p. 997; and June 22th, 1895, p. 1480.
[5] Ibid., April 5th, 1890, p. 783.
[6] London: H. K. Lewis. 1900.
[7] Berliner Klinische Wochenschrift, 1893, No. 1.

A NEW AND PROBABLE SOURCE OF ARSENIC IN BEER.

To the Editors of THE LANCET.

SIRS,—My researches as to the source of arsenic in beer confirm those of Mr. Kirkby of Owens College—namely, that the greatest source is arsenicated sulphuric acid used in making glucose and invert sugar. There is, however, one possible and probable source of contamination of beer that I have not seen reported on. My

attention was drawn to it by the fact that some of the arsenicated beers of Bacup were made from malt and hops only, no glucose or invert sugar being used. The brewers and analysts concerned were puzzled to account for it. The amount present was probably less than one grain of arsenic in 280,000. One brewer found that I had taken the first draw from the pump in the morning and suggested that the pipes and indiarubber tubing leading from the pumps to the barrel might be the cause. Samples of beer were taken from the wood or barrel and they were found to be absolutely free from arsenic by the most delicate tests known. It was clear, therefore, that the contamination must be after the beer left the barrel. I obtained a new pipe of the kind used in the trade and found arsenic present. I then obtained indiarubber tubing which had been used; arsenic was present in much larger quantity.

As regards the main cause of this arsenical poisoning epidemic, it is obvious that the amount of arsenic present in the rubber tubing used would not be of very serious account, as it is probably less than one part in 280,000; nevertheless, one can easily understand that beer having stood in the tubing all night, or for some considerable period, may be distinctly marred from this source. By Gutzeit's test there was distinct evidence of arsenic being present in both new and old indiarubber tubing, also in old and new lead piping. The old rubber tubing having been dissected into three layers, each was submitted separately to this test, also the layers together, and the results were compared. In old rubber tubing (1) the inner coat showed an appreciable quantity of arsenic easily detected (the beer passing into the tube was found to be arsenicated); (2) the middle coat or canvas layer gave the most marked result, arsenic being present in distinct quantity; and (3) the outer coat showed a very faint, almost inappreciable, quantity. On comparing the canvas layer or middle coat with the result of the three layers together it was quite clear that this coat was the most highly charged. *New rubber* tubing analysed similarly gave the following results: (1) the inner coat was practically free; (2) the middle coat again gave evidence of arsenic being present in somewhat similar quantities to those found in the old tubing; and (3) the outer coat gave distinct traces. On comparing the canvas coat with the three layers together the results again showed the middle coat to be the chief source of arsenic. The quantity used in the above investigations was one gramme.

I am, Sirs, yours faithfully,

Bacup, Dec. 19th, 1900. JOHN BROWN, M.D., D.P.H. Vict.

ARSENIC AND AERATED WATERS.

To the Editors of THE LANCET.

SIRS,—I referred in my communication to you *re* arsenic in beer[1] as to the possibility of aerated waters prepared from arseniated sulphuric acid being contaminated. I am now glad to be able to report that no trace of arsenic could be found after exhaustive analysis in specimens of soda water, hop ale, and lemonade submitted for examination, although an impure specimen of sulphuric acid had been used in their manufacture. A very faint trace of lead was found in the lemonade, probably derived from the citric acid used. I may add that the impure sulphuric acid was at once returned to the manufacturers.

I am, Sirs, yours faithfully,

A. H. BAMPTON, M.D. R.U.I.

Ilkley-in-Wharfedale, Dec. 15th, 1900.

"A RECENT DEVELOPMENT IN ADVERTISING."

To the Editors of THE LANCET.

SIRS,—First let me thank you for the excellent advertisement you have given to Craigside Hydro, Llandudno, free of charge, in your leaderette in the issue of THE LANCET of Dec. 15th, under the above heading. In the leaderette you have thought it necessary to condemn the method of advertising adopted by its directors, which method you describe as "evil," and moreover charge medical men who take advantage of the directors' invitation with sacrifice of self-respect.

I cannot help feeling that you have made these charges with a very slight knowledge of what you write about, probably without seeing the letter accompanying the coupon. I cannot think that you object to a hydropathic establishment advertising, otherwise you would not admit advertisements of hydros to your advertisement columns. Nor can I think that you object to directors of such institutions bringing their establishment to the notice of the medical profession, otherwise the *raison d'être* for your advertisement pages is abolished. I conclude, therefore that it is the suggestion that medical men should at the cost (in some cases considerable) of their railway fare only be invited to visit the establishment to which they are asked to entrust their patients for, it may be, a considerable time.

I enclose a copy of the letter which accompanied the coupon and from this you will see that it is a straightforward request to medical men to send their patients to this establishment. It would be unreasonable to expect a doctor to send a patient to an establishment with which he was unacquainted; surely, therefore, the fact that he may once in his lifetime visit it for three days free of charge to satisfy himself that it is a suitable place to which a patient may be sent can scarcely involve such charges as the delicately hinted "bribery" and "corruption" and badly expressed "loss of self-respect" which you make in your article. I should like to draw attention to the following sentence: "It says in effect 'We will pay you for a three days' holiday here, afterwards send your patients who will pay us.'" Owing to your lack of knowledge of facts I hope, and not to a desire to "score" by innuendo, you have missed the object of the letter. You should have said: "It says, in fact, 'Come and stay for three days without charge, and if you find things as you wish send your patients who will pay us, as we consider our establishment suitable for patients whom you wish to send to the seaside.'"

I am pleased to say that your prognosis as to the manner in which the advertisement would be received by the profession has already proved incorrect, as the directors have received numerous letters from doctors thanking them for the invitation and expressing the intention of the writers to avail themselves of the same, and have, moreover, cashed a considerable number of the coupons. It may be news to you, but it is nevertheless the fact, that it is not by any means an uncommon occurrence for medical men who write applying for charges for a holiday at a hydropathic establishment to ask for a reduction of terms in consequence of their profession and of their ability to recommend patients. As I said before, I enclose you the coupon and letter and trust you will be able to avail yourself of the directors' invitation.

I am, Sirs, yours faithfully,

Llandudno, Dec. 16th, 1900. J. MILES CHAMBERS, Managing Director.

To the Editors of THE LANCET.

SIRS,—I write in the interests of mere justice (for I have no other interest in the matter) to protest against the tone of your annotation concerning the above. I for one can see no objection to the offer of entertaining medical men for three days in order to let them practically experience what manner of establishment is open for the reception of their patients if they please to recommend it. It is in no sense a constructive *bribe*, for no testimonial or *quid pro quo* is sought. If the medical man thinks the place worthy he can send his patients there—not unless. I have received advertisements from other establishments offering *commission* for sending patients, which is certainly objectionable; and from others offering to receive patients recommended by oneself at reduced charges, which might be open to abuse. But to the Craigside practice I cannot discern any honest objection. It is a perfectly fair and legitimate means of advertising—and without advertising how can such establishments become widely known? It is a guarantee to the public of the genuineness of the advantages of the establishment to submit it to such a practical test. To characterise it as an *implied bribe* to medical men is to lay the profession open to a most unworthy aspersion.

I am, Sirs, yours faithfully,

C. E. RICHMOND, F.R.C.S. Eng.

Manchester, Dec. 18th, 1900.

"NEW-LAID EGGS AND FRESH EGGS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 15th, p. 1758, I was pleased to read in the letter of Sir W. T. Gairdner

[1] THE LANCET, Dec. 8th, 1900, p. 1675.

about the system of his "very dear old relative" practised by her in greasing the new-laid eggs the instant they were laid with the practical result that the eggs remained fresh, by which means they were kept good for an indefinite period. Some 40 to 50 years ago my mother (God rest her soul) had a large number of hens, turkeys, and geese. The hens' eggs were brought in by one of the dairymaids when laid and they were "buttered." The large number of eggs that accumulated induced my mother to add to her "pin money" by selling them. Her buyers came, but though offered the buttered eggs they declined them as "not saleable." The result was that the eggs for home consumption were buttered, but those for sale were not. I fear, then, from this experience that if buyers of eggs are of the same opinion now as when my dear mother had to do with them the new-laid buttered eggs would not be acceptable to the trade, though much the public would lose in their freshness. The market and the middleman trader would have to be trained to the knowledge to induce a sale of preserved new-laid eggs to the public. If the "system" could only be promoted by poultry-farmers in general and adopted, what blessings would be given by the housekeepers and housewives of the metropolis and lodging-house boarders in having an egg for breakfast that was eatable.

I am, Sirs, yours faithfully,
F. A. PURCELL, M.D. R.U.I.

Manchester-square, W., Dec. 18th, 1900.

"KIRKES' PHYSIOLOGY AND AMERICAN PIRACY."

To the Editors of THE LANCET.

SIRS,—Not having seen the letter of Mr. John Murray upon the subject, Professor Halliburton's communication in THE LANCET of Dec. 15th, 1900, p. 1761, was the first intimation to me that my name continues to appear upon the title-page of what may be called an *unauthorised edition* of Kirkes' Handbook of Physiology published in America, as joint editor with (the late) Mr. Morrant Baker. The well-informed reviewer of the *Boston Medical and Surgical Journal*, quoted by Professor Halliburton, gives a pretty accurate account of the history of the book in question. The first edition of Kirkes' Physiology was brought out in 1848 by Dr. Kirkes, assisted by Mr., afterwards Sir James, Paget, and these names appeared upon the title-page, I think, until 1869 when Mr. Morrant Baker edited the sixth edition. Mr. Baker continued to be sole editor until 1880 when I assisted him in bringing out the tenth edition. The book continued under our joint editorship until 1892 when the thirteenth edition was published; this was revised in 1894 and was, according to the preface, to be looked upon "in certain respects as a new edition." As far as I can recollect this revision was done by me. After the issue of this revised edition Mr. Morrant Baker and I ceased to be editors—the former in consequence of failing health and I because I had given up the teaching of physiology. The next edition was edited by Professor Halliburton and was to a large extent a new book with a complete rearrangement of the subjects and a much enlarged scope. The editor and the publisher were certainly justified in looking upon the fourteenth edition, therefore, as practically a new work upon physiology. Perhaps it would have been better if the old title had been given up, but there were, no doubt, cogent reasons against this. Since 1894, then, neither Mr. Morrant Baker (whose lamented death occurred in 1896) nor I have had anything whatever to do with the editing of "Kirkes' Handbook" and the continued use of our names in this connexion is a most unwarranted and unjustifiable proceeding.

I am, Sirs, your faithfully,
Queen Anne-street, W., Dec. 18th, 1900. VINCENT D. HARRIS.

"MERCANTILE MARINE MEDICAL OFFICERS."

To the Editors of THE LANCET.

SIRS,—There is an interesting letter in THE LANCET of Dec. 1st from your Paris correspondent dealing with, *inter alia*, mercantile marine medical officers. The perusal of this note and reading in the *Daily Telegraph* of Dec. 13th Admiral Hopkins's "Hints on the Navy of the New Century" reminded me that some few years ago I advocated the necessity of a medical adviser at the Board of Trade where just such matters as your correspondent alludes to should be dealt with, as well as others of a cognate character, by a specialist instead of the ordinary laymen. At that time you, Sirs, deemed my proposition "rather a large order." Perhaps the subject might now be worthy of reconsideration. And as there is a new President at the office the coming session of Parliament would be a favourable time to induct an official medical head at the Board following on the lines of the suggestion of Admiral Hopkins for the appointment of a flag officer at the Admiralty.

There are many measures in regard to the office of ship's surgeon and the conduct of affairs connected with that position requiring improvement, and notably the clearing of tramp steamers and short ships, *without inspection*, going long voyages, sometimes with incompetent men, and almost invariably ill-provided with medicines and instruments. The receiving and tabulating of medical reports of the diseases treated on board as well as those noted at different places of call—attention to the eyes of the ship—these and other strictly professional work in the interests of the seaborne population as well as for the dwellers on land would well repay the expense of such an official. I simply throw out these suggestions in the hope, Sirs, that if you think favourably of them they may have the benefit of the powerful advocacy of THE LANCET in your own way.

I am, Sirs, yours faithfully,
R. A. CALDWELL.

Bournemouth, Dec. 17th, 1900.

THE RATING OF HOSPITALS.

To the Editors of THE LANCET.

SIRS,—With reference to the question I asked in the House of Commons last Friday, as to relieving hospitals and kindred institutions from the burden of paying rates, the following reply was given me by the Government:—

> I beg to inform my honourable friend that the matter is one of considerable difficulty and forms part of the subject now under the consideration of the Royal Commission on Local Taxation. I cannot at present give any promise as to its being dealt with by the Government.

For your information you may be interested to know that I shall not relax my efforts in the direction of the subject-matter of my question.

I am, Sirs, yours faithfully,
Dec. 20th, 1900. FRED. HORNER.

"THE TREATMENT OF MALARIA BY HOMŒOPATHIC MEASURES."

To the Editors of THE LANCET.

SIRS,—It is only two days ago that my attention was drawn to your article on "Malaria and Homœopathy" in your issue of Nov. 24th, and to the letter from my father, with your peculiar "editoral note" appended, which appeared in your succeeding issue. Your "note" provides a really interesting study, as it shows how uncontrollable temper and sense are not found at the same time in the same individual. Your quibbling as regards "qualified homœopath," is not only puerile, but utterly false.

Homœopathy is merely a higher branch of the therapeutics (?) [the query is Dr. Hayward's—Ed. L.] taught at all our universities. Following out your argument, there are no "qualified nerve specialists," "qualified medical electricians," or "qualified serum therapists," as each of these departments is a higher development of its subject as taught in the universities. Not one of them was included either in the examination or curriculum, when you or I obtained our diplomas; although they have each (most decidedly including homœopathy—but in this case mystifying the source) since been more and more incorporated in the teaching of each of our colleges. All the most honoured men in our profession are therefore, according to your idea, "unqualified" in their special branch, an opinion which even you dare not put into print. I sympathise with you in the very unfortunate "analogy" you use, but consider that your execrable taste in using it fully merits the recoil it possesses. It is difficult to follow your analogy between honourable medical men—though homœopaths—and the characters you mention, but one is at once struck by the amazingly close resemblance between an editor who uses falsehood and mud to besmirch honourable opponents and another character who did the same thing—Pigot—and who is naturally suggested by your

examples, but whose villany was of a distinctly meaner type than theirs.

I am sorry for the honourable profession which has to regard you in your official capacity as some sort of a figure-head when it sees you stooping to the gutter to grab the most unsavoury filth you can find so as to throw it at men as honourable as any others in the profession, men who have had the same medical training as yourself, who have satisfied the same examiners, and who have obtained at least as good diplomas as you yourself can hold. And after throwing the mud, with your hands still reeking of the gutter-filth, you "shut down" your columns so as to preclude the possibility of any protest from the gentlemen you have tried to vilify, or from honourable men on your own side who might desire to remonstrate with you.

I am afraid it is too much to expect you to re-open your columns so as to publish this letter, but if you could see your way to re-considering your decision I am sure it would give pleasure to your readers, for you know gentlemen are always pleased to see a gutter-snipe thrashed by one of the respectable people whose clothes he has attempted to dirty, even when—as in this case—he has only succeeded in soiling his own hands without in any way tarnishing the lustre of the object of his attack. I do not think the general profession will be glad to find that they have entrusted the management of an old and—excepting as regards the "editorial columns and notes"—a still honoured journal, to a man who, while having no pretence to gentlemanly feelings, mistakes falsehood and vituperation for the intelligence which should be as necessary as gentility in anyone managing such a property. However, so that some at least of the profession may be satisfied that your footnote "cannot give any more space to this matter.—ED. L.," has not stifled all protest, I am sending copies of this letter to two other medical journals, in which not only is the honour of the entire profession carefully guarded, but where gentlemanly conduct controls not only the outside contributions and advertisements, but—which differentiates them from your journal—in which it also regulates the editorial columns and comments.

I am, yours truly,

CHARLES W. HAYWARD, Barrister-at-law, M.D., C.M., D.P.H., M.R.C.S., L.R.C.P.

Liverpool, Dec. 14th, 1900.

*** Dr. Hayward asks for the publication of his letter. Here it is.—ED. L.

"INFAMOUS."

To the Editors of THE LANCET.

SIRS,—Your report of the proceedings of the General Medical Council in its decision in the case of the Birmingham Consultative Institute cannot fail to give rise to a feeling of insecurity amongst members of the profession who hold public appointments. It would greatly tend to the public advantage if the Council would condescend to explain the subtleties which must lie beneath the surface of their decision of last week.

Why should it be "infamous" for a medical man's name to be printed on the prospectus of a company who have elected him as their medical officer, whilst at the same time the names of hundreds of medical men, bearing office in hospitals, insurance companies, medical clubs, &c., are scattered broadcast over the country in thousands of hospital reports, prospectuses, &c., with impunity? Again, the hydropathic institutions of this country advertise the name of their medical officer in pamphlet and poster. Is it not time that the General Medical Council, in addition to its other important duties, should revise the wording of their verdicts?

The word "infamous" means "having a reputation of the worst kind; publicly branded with odium for vice or guilt; base, scandalous, and notoriously vile; held in abhorrence; branded with infamy by conviction of a crime." It will be interesting if the Council will deign to point out which of the foregoing definitions apply to the Birmingham consultant. If "infamous" is a term to be employed as the official utterance against alleged advertising of a company's officer, why is not every holder of a public office equally "infamous"? Our public officer of health—a most worthy soul—is "infamous" under this ruling every week. Again, may I ask what is the proper term to employ in speaking of a medical man found guilty of criminal abortion?

I am, Sirs, yours faithfully,

Dec. 9th, 1900. A HOSPITAL SURGEON.

"THE LIABILITY OF THE BREWER IN THE RECENT EPIDEMIC OF PERIPHERAL NEURITIS."

To the Editors of THE LANCET.

SIRS,—The writer of the leading article in THE LANCET of Dec. 15th on the legal aspects of the recent epidemic of peripheral neuritis might have cited in support of his contentions cases which have attracted notice recently, such as the action of Smith *v.* the Inns of Court Hotel, in which it was alleged that guests had been poisoned by food eaten in the hotel; or an action which excited some amusement in 1896, brought by a plaintiff who claimed to have suffered from drinking beer out of a bottle containing a dead mouse. It will be found, I believe, that each of these cases turned on the question whether there had been negligence, and that it was not said in either that there was any implied warranty that the food or drink was fit for the purpose for which it was sold. From analogy thus supplied it seems clear, therefore, that any claims that may arise out of the epidemic will resolve themselves into the question whether the brewers were negligent.

Now neither the manufacture of glucose nor that of sulphuric acid is in the nature of a trade secret or an obscure scientific process. "Glucose in commerce = the sugar syrup obtained by the conversion of starch into sugar by sulphuric acid." "The sulphuric acid of commerce is never pure, but may contain lead sulphate, arsenic, and other impurities." These are not extracts from even a text-book on chemistry; I find them in the Century Dictionary under the words "glucose" and "sulphuric acid." On the other hand, the extent to which glucose and "invert" sugar are used in brewing, their sources, the prices paid for them, and the elements influencing such prices are matters intimately concerning individual brewers and are not easily scrutinised or controlled by others.

It seems, therefore, to me that there will be evidence that the brewers might have known, and must have known, that the chemical preparations they used were liable to contain arsenic or that they had no business to use them if they knew nothing about them. That knowing they might contain arsenic they ought to have analysed them in order to ascertain that they were pure, and that their neglecting to do so will be evidence of negligence on their part. You have in your columns shown the kind of scientific evidence at the disposal of plaintiffs and the evidence to prove that the negligence of the brewers was the cause of suffering and death to customers in public-houses owned by them for the exclusive sale of their own beers, and it further seems probable that juries will not be inclined to spare them. The precise evidence that will connect each case with the beer of the particular brewer will be a matter for the consideration of the individual litigant; the probable scope and general character of the case to be presented by those who have themselves been poisoned or who claim because they have lost relatives upon whom they depended you have pretty clearly indicated.

I am, Sirs, yours faithfully,

Dec. 19th, 1900. M. A.

P.S.—It is now stated that certain malts have been found to contain arsenic. Whether they do so owing to some new or secret process in their preparation has not yet been shown. It is, however, clear that brewers' chemists will have to master the details of the preparation of all materials that brewers use and analyse with a view to detecting all dangerous ingredients that known processes of manufacture are likely to introduce into them.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Bogus American Diplomas in India.—Typhoid Fever and the Water-supply of Rangoon.—The Water-supply of Calcutta.—The Plague in India.—The "Barefoot Theory" of Plague Inoculation.

INDIA has apparently been a good market for the sale of bogus diplomas to native medical practitioners, for the Government has found it advisable to warn the public against certain American degrees. In a country like India, where there is no medical registration of any kind and where any knave can assume any title he likes, such

a warning was especially necessary. There are certain persons in this country who are known to practise on these bogus degrees. It is therefore gratifying to find that action has been successfully taken in Chicago, and that one practitioner in Calcutta and another in Bombay have had their negotiations for these degrees cut short. Not much good can be accomplished, however, so long as the crowds of native untrained men are permitted to impose on their credulous fellow-countrymen.

In consequence of a severe outbreak of typhoid fever in Rangoon Major Davis was appointed by the local government to inquire into the condition of the water-supply. The result is a severe condemnation of the water from the standpipes, wells, and royal lakes. Of the latter Major Davis says: "The physical characteristics were so bad that I think it unfit for drinking. ..... The lake is also obviously liable to contamination." It appears that the causes of contamination are the deposits of manure on the land of Dalhousie Park for gardening purposes and the absence of sanitary precautions to prevent pollution by the large assemblage of low-class Burmans and other natives on the shores of the royal lake during the week's celebration of Burmese aquatic sports. In these days of advanced sanitation it is astonishing that the authorities should have allowed these things to exist. As a remedy the health officer advocates the hurrying on of the water scheme at Thamaing.

The city of Calcutta is also very improperly supplied with water. For drinking purposes the water is taken from the Hoogly several miles up the river and then filtered, but the supply is turned on only twice a day for a few hours. The consequence is that the natives largely use dirty pond water and equally dirty well water. The water used for the roads is the water from the river unfiltered. It is satisfactory to hear that a change is contemplated. A visit of certain corporation officials has been made to the filtering grounds and it is said that an improvement both in the quantity and quality of the water is promised. The city is also to have a continuous supply of filtered water. The pressure in the mains will also be increased, so that water may rise to the second, or even to the third, storey. At present it barely reaches the first. I find it reported that the commissioners have stopped the grazing of cattle in the grounds. Here, again, one cannot help expressing astonishment that such a thing should have been permitted. Calcutta has been described as the home of cholera. It is obvious, however, that the disease cannot be eradicated so long as the natives are permitted to use the numerous sewage-polluted ponds and wells.

The return of deaths from plague throughout India during the past week shows that the epidemic is not on the increase. There were recorded 1989 deaths as compared with 2192 for the preceding seven days and with 2080 for the corresponding week last year. The Mysore State is chiefly affected, but Calcutta, Monghyr, Saran, Patna, and Gaya in the Bengal Presidency continue to return double and treble figures. Most of the deaths from plague in Calcutta are now returned as suspicious, but anyone acquainted with the facts can easily read between the lines. As the mortality in Calcutta as well as in Bombay keeps unusually and unexplainedly high it is very probable that there is more plague existing than is reported. I am pleased to record that plague has now again almost disappeared from the Punjab. In Bombay city there has been a slight increase over the previous returns.

The port health officer of Bombay, in his report for 1899, expresses himself very decidedly on the means of infection in plague as follows: "The majority of plague cases in the East contract the disease by inoculation through cracks, fissures, or ulcers on the feet, as the large majority of the population go barefoot." He goes on to express the opinion that "as long as plague in the East is confined to the bubonic type the people at European ports, and the other ports where the population wear boots and shoes, will not suffer from the disease in an epidemic form." The great care which is taken at the Bombay port against the spread of plague is probably the explanation why the disease has not been readily conveyed to other places. The "bare-foot theory" is open to question seeing that groin buboes are of common occurrence amongst Europeans and others who wear boots.

A further decrease of 142,135 persons in receipt of famine relief is recorded for this week. There are still 173 161 persons on relief works, the remainder receiving gratuitous relief. The various Native States have 59,573 persons on relief.

Nov. 30th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Epidemic of Peripheral Neuritis.

THERE have been 30 cases of peripheral neuritis in the Birkenhead Workhouse hospital since the middle of October. A coroner's inquest was held a few days ago in Birkenhead touching the death of a female who was suspected of having died from arsenical poisoning. Mr. G. S. Stansfield, the medical officer of the Birkenhead Workhouse, attributed the death to peripheral neuritis caused by arsenic or some other irritant poison. The inquest was adjourned for a fortnight to enable a thorough analysis to be made. In the Liverpool Workhouse several cases of peripheral neuritis are under treatment.

Death of Henry Greenwood Rawdon, M.D. St. And.

The news of the unexpected death of Dr. H. G. Rawdon at Elstree, Hertfordshire, was received by his numerous friends in Liverpool with great regret. Dr. Rawdon received his medical education at the old Liverpool School of Medicine and at Guy's Hospital, becoming a Member of the Royal College of Surgeons of England in 1858. Later he graduated as M.D. at the University of St. Andrews, and became a Fellow of the Royal College of Surgeons of Edinburgh in 1885. Dr. Rawdon was an excellent surgeon, his reputation being very high at the Liverpool Infirmary for Children (where he held the post of honorary surgeon for a number of years) owing to his successful and original operations for the repair of hare-lip and cleft palate. Upon his retirement from the Infirmary for Children he was appointed honorary surgeon at the Royal Southern Hospital. He retired from practice upwards of two years ago and removed to Elstree in Hertfordshire, devoting himself to rural occupations, which possessed a great charm for him. Dr. Rawdon had the misfortune to lose his wife 12 months ago, and his grief probably hastened his decease, which was due to apoplexy. He was in his sixty-fourth year and leaves no issue. Dr. Rawdon was descended from an old Yorkshire family, some of whose members served in the Parliamentary army during the Civil War in the reign of Charles I.

Dec. 18th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Physicians of Edinburgh: the Morison Lectures.

AT the annual meeting of the Royal College of Physicians of Edinburgh, held on Dec. 6th, the following Fellows were elected office-bearers of the College:—President: Dr. Thomas Richard Fraser. Vice-President: Dr. James Andrew. Council: Dr. J. Wyllie, Sir John Batty Tuke, Dr. T. S. Clouston, Dr. G. A Gibson, and Dr. D. Berry Hart, along with the President and Vice-President.—The Morison Lectures were this year delivered by Dr. G. W. Balfour. The first lecture was delivered on Dec 4th in the hall of the Royal College of Physicians of Edinburgh, Dr. Andrew, President of the College, being in the chair. The title of the lectures was "On the Borderland," and in his first lecture Dr. Balfour discussed the many instances in history of persons who, judged by modern ideas, would be considered more or less insane, but who in their own time exerted a great and important influence on the nations among whom they lived. Quoting Dryden's dictum that "great wit to madness sure is near allied," he referred to the hallucinations of Socrates, the strange story of Joan of Arc, and the career of Mahomet, whom the lecturer held to be even more unmistakably insane than Joan of Arc. Turning to the realm of literature Dr. Balfour showed that many of the noblest works in literature had been produced by men who dwelt on the borderland, as examples of whom he cited Jonathan Swift and William Cowper. He also demonstrated that persons who might be classed in that category were often distinguished by remarkable activity of mind and body. The second lecture was delivered on Dec. 11th, Professor T. R. Fraser, the new President of the College, being in the chair. Dr. Balfour in continuing his subject dealt with what he called the epidemic insanities which had from time to time swept over the world. Examples of epidemic

insanities were seen chiefly in the Middle Ages, though even in their own time there had been thought-waves of insanity which had only been noticed when criticised by another age. The most outstanding example was the occurrence of the Crusades. These were aroused by Peter the Hermit, being an attempt to drive the Mahomedans from the Holy Land, and they culminated in the tragedy of the Children's Crusades. The Crusades had left their influence on the world: they caused the breaking-up of feudalism and gave an impulse to commerce; moreover, by bringing leaders of men into closer contact with the Church they had brought about a closer scrutiny of the Papal system and paved the way for the Reformation. The Turk still ruled in Palestine, but Europe had benefited by the Crusades. No other epidemic of insanity, however, had been of advantage to the world. Dr. Balfour then referred to the pandemic dancing mania which appeared about the end of the fourteenth century and spread over Europe for 200 years. This choreiform insanity was finally put an end to by the Thirty Years' War. A remarkable form of epidemic insanity had occurred in this century—namely, table-turning, table-talking, and thought-reading. In 1851 there had been an epidemic of mesmeric mania which had left many enfeebled bodies and minds. Hypnotism had not been able to hold its place as a method of treatment and had now passed out of the region of medicine. Another form of insanity which had existed in all times, but which was more endemic than epidemic, was spiritualism. No single fact of any importance had been revealed by those calling themselves spiritualists. In conclusion Dr. Balfour drew the following lessons: 1. Insanity was a disease of which no one need be ashamed. It was a disease of the brain, not of the intellect, and might occur in persons possessing the finest minds. 2. As the object of all education was to control the emotions, so any excitement which tended to weaken the will and emancipate the lower part of the being was to be avoided. At the conclusion of the lecture Professor Fraser expressed thanks to Dr. Balfour in the name of the College. At both lectures there was a large attendance of ladies and gentlemen.

The Edinburgh Hospital and Dispensary for Women and Children.

On Dec. 10th the annual meeting of the friends of the Edinburgh Hospital and Dispensary for Women and Children was held in the Society of Arts Hall, George-street, Mrs. Steel, wife of the Lord Provost, being in the chair. This hospital has recently entered on a new phase of its existence, having been transferred from Grove-street to Bruntsfield Lodge. The new hospital is very well equipped and is, moreover, a home-like and cheerful building. Since it was opened some months ago many serious cases have been treated in its wards which could not have been undertaken in the Grove-street days. The medical officers hope in the coming year to work a similar reformation in the dispensary department which is still stationed in Grove-street. Among those who took part in the meeting were Lady Chalmers, Dr. Beatrice Russell, Dr. Emily Thomson, Dr. George W. Balfour, and Sir A. Christison.

Queen Victoria Jubilee Institute for Nurses.

The annual meeting of the subscribers to the Scottish Branch of the Queen Victoria Jubilee Institute for Nurses was held in the Training Home, Castle-terrace, Edinburgh, on Dec. 11th, Sheriff Guthrie, Q.C., being in the chair. During the past year 35 nurses completed their training as Queen's nurses in Edinburgh, while 13 nurses completed their training in the smaller training homes in other towns. Since the opening of the institute 271 nurses have been trained. There are now 199 Queen's nurses in Scotland working under 111 associations. Additional pecuniary assistance is much needed as the committee contemplate in the future trying to send nurses to districts where the people are too poor to support the nurses.

Appointment for the Medical Officer of Health of Leith.

Dr. W. Leslie Mackenzie, medical officer of health of Leith, has been appointed Inspector to the Local Government Board and has therefore resigned his post as medical officer of health of Leith. The resignation took effect on Dec. 15th and a successor to Dr. Mackenzie is to be advertised for at a salary of £400 per annum.

Dr. Alexander Edington on Malaria.

At last week's meeting of the Glasgow Philosophical Society Dr. Edington, director of the bacteriological institute of Cape Colony, gave an account of his nine years' work in South Africa. He dealt chiefly with the questions of "horse sickness," rinderpest, and Texas fever, referring to the striking success which had attended the practice of prophylactic immunisation by bacteriological methods, particularly in rinderpest. In passing he made an interesting reference to malarial fever. While giving his assent to the mosquito theory he warned his audience not to assume that this was the only way in which malaria may be acquired by the human subject, and in support of this warning he quoted the fact that while in Rhodesia mosquitoes were always present malarial fever prevailed only during three months of the year; and as evidence against the view that the anopheles host must have previously bitten a human being who was the subject of malaria he referred to the case of four young men who went hunting in an absolutely uninhabited district, three of whom died in a short time from malignant malaria, while the fourth was barely able to struggle home.

Glasgow Main Drainage.

The city engineer has issued a long and valuable memorandum on the progress of these works and the applicability of the bacterial method of purification of Glasgow sewage. Experimental plant for testing the bacterial method of dealing with sewage had been set down in the east end of the city, this experiment being the outcome of a report published by a committee which visited the bacterial sewage tank at Manchester, in which report the effluent is spoken of as being satisfactory, while "an enormous quantity of sludge which would otherwise accumulate is destroyed in this way." The most recent report from Manchester, however, shows that 4000 tons of putrid sludge had accumulated in this tank and was with difficulty taken out to sea, as the gases evolved caused the sludge to froth up over the valves on to the deck of the sludge steamer. In the experimental tank at Glasgow also the effluent is all that could be desired, but there is already evidence that sludge is collecting in the open septic tank. The cost of the proposed works for the bacterial treatment of sewage, moreover, puts the plan out of court as a practical scheme; in round figures it amounts, for the purposes of a city like Glasgow, to £1,500,000 for plant alone, with, further, the cost of 80 additional acres of land required for such plant. This and the large and at present incalculable working expenses and the cost of disposing of sludge form prohibitive obstacles to the scheme. Against this the cost of the precipitation plant is put at only £150,000 and the space required at 22 acres. All this refers of course only to the sewage plant at Dalmuir and not to the many miles of sewers required to connect the city with these works.

Glasgow Victoria Infirmary.

The annual report of this institution includes an appreciative reference to the late Sir Renny Watson who was for many years chairman of the infirmary. It also announces the completion of the nurses' home and gives the usual statistics, which show a generally satisfactory state of affairs, including the financial department. The Lord Provost, who presided, moved the adoption of the report and in his speech he argued against the suggestion that the infirmaries should be kept up by the public rates rather than, as at present, be dependant on private liberality. One of the most interesting features of the meeting was a proposal to place two ladies on the board of directors. A similar proposal has been adopted in connexion with the other large general infirmaries in Glasgow, but in spite of this precedent the supporters of the Victoria Infirmary would not be convinced and, somewhat ungallantly, placed the ladies at the bottom of the poll.

Glasgow University.

At the December meeting of the University Court the secretary read a letter from Dr. Thomas Reid resigning his appointment as university lecturer on diseases of the eye. The Court accepted the resignation and resolved to record in the minutes an expression of regret at the loss of Dr. Reid's services. Dr. Reid has held the lectureship for more than 30 years. It was resolved that the regulations of the "Coats Memorial Scholarship," founded in memory of the late Professor Joseph Coats, should include a condition to the effect that the holder of the scholarship must engage in "research work in pathology during a winter and a summer session either at the Western Infirmary or in some other laboratory approved by the medical faculty." The Court appointed Dr. D. C. McVail as its representative on the committee of management of the Glasgow Samaritan Hospital; and re-elected Dr. Charles Workman as lecturer and examiner

in pathology. A gift to the library of 1080 volumes from Sir W. T. Gairdner, K.C.B., was announced, and also a number of recent surgical works from Dr. J. H. Nicoll. It has been decided that the academic celebration of the ninth jubilee of the University shall be held on June 12th, 13th, and 14th, 1901. In connexion with this event a fund is to be raised to extend the University laboratories. As a contribution to this fund a donation of £5000 from Mr. J. Templeton is announced, and several donations of £1000 have also been promised.

Death of Thomas Wilson Jenkins, M.D., C.M.Glasg.

There are many, both at home and abroad, who will hear with deep regret of the death from phthisis pulmonalis, and at the early age of 38 years, of this able gynæcologist. His kindliness of disposition, his skill and thoroughness in work, and his ready help in consultation, will be greatly missed by his colleagues in the Victoria Infirmary and the Glasgow Samaritan Hospital and by a large professional circle in and round Glasgow. The pathos of his death lies largely in the fact that he has been cut down just as he had begun to reap the fruits of many years' honest work in the shape of a large and increasing consulting practice.

Degrees in Public Health and Science at Glasgow University.

The General Council of Glasgow University has made a representation to the University Court advocating the establishment of degrees in science and public health, on the understanding that laboratory instruction of the kind desiderated by the late Universities Commission was now given in the University. "In 1895 the commissioners wrote that they could not have such degrees in Glasgow University till proper laboratory accommodation was provided. The required laboratory accommodation was duly obtained, but then a proposal was made by Professor Sir W. T. Gairdner to have a professorship of public health separate from that of medical jurisprudence, and while this was under consideration the matters came to a standstill. The whole matter has been remitted to a committee of the University Court for information and report.

Medical Appointments and Vacancies.

The following gentlemen having passed the necessary examinations have been elected Fellows of the Faculty of Physicians and Surgeons of Glasgow: Mr. William Donald Anderson, Dr. James G. Connal, Dr. Alexander Macphail, and Dr. John H. Teacher.—The positions of obstetric physician and assistant obstetric physician to the Glasgow Maternity Hospital are advertised as being vacant, the term of office of Dr. Malcolm Black and Dr. Munro Kerr respectively having expired.—The University of Glasgow has received from the War Office a communication stating that a number of medical men are required for service in South Africa to replace others whose period of service is about to expire. The engagement is for a year, the pay being £1 a day with free passage and allowances for rations, horse, and service, and two months' full pay on satisfactory completion of the term of service. Applicants must apply personally to the Dean of the Medical Faculty. Dr. Robert Steel has resigned his appointment as assistant dispensary physician to the Glasgow Royal Infirmary.

Aberdeen Hospital Saturday Fund.

Last year's total income of the Aberdeen Hospital Saturday Fund amounted to £1009 10*s.* 7*d.*, and the aggregate expenditure to £281 7*s.* 2*d.*, leaving in the bank the sum of £728 3*s.* 5*d.*

Dec. 18th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Dr. Steevens' Hospital, Dublin.

AT a meeting of the governors and guardians of Dr. Steevens' Hospital, held on Dec. 11th, the following appointments were made on the staff: Assistant physician: T. Percy C. Kirkpatrick, M.D. Dub. Pathologist: Francis C. Purser, M.B. Dub.

Royal College of Surgeons in Ireland.

At a meeting of the Fellows, held on Dec. 17th, Sir William Thomson was elected a Member of Council of the Royal College of Surgeons in Ireland.

Coombe Lying-in Hospital, Dublin: Election of Master.

Dr. Frederic Kidd's term as master of the Coombe Lying-in Hospital having expired, the election to the vacant office—tenable for the next seven years—took place on Dec. 16th in the board room of the institution. There was a full attendance of the governors of the hospital, the Lord Mayor filling the chair. The election was by ballot, but as each of the candidates—Dr. Cole-Baker and Mr. Thomas G. Stevens—received an equal number of votes the matter was decided by the Lord Mayor who gave his casting vote in favour of Mr. Stevens. The closely contested election created much interest in medical circles. Mr. Stevens, who is a Fellow of the Royal College of Surgeons in Ireland, was formerly assistant master to the Coombe Hospital.

Will of the late Sir William Stokes.

The personalty of Sir William Stokes of 5, Merrion-square, Dublin, President of the Royal College of Surgeons in Ireland, 1886, surgeon-in-ordinary to the Queen, who died at Pietermaritzburg on August 18th, is entered at Somerset House as £11,646. Letters of administration to the deceased's estate have been granted to his widow.

Catholic University Medical School.

The first annual dinner of the students of the Medical School of the Catholic University was held on Dec. 13th under the presidency of Sir Christopher Nixon, M.D. R U.I. Dr. More Madden proposed in eloquent terms the toast of "The School and its Teaching Staff," which was responded to by the chairman, who mentioned the following interesting facts. In 1880 there were 577 medical students in Dublin; of these Trinity College had 220, the Royal College of Surgeons 243, and the Catholic University 114. In 1900 the total number of students was 401, of which Trinity College held 120, the Royal College of Surgeons 125, and the Catholic University 156.

The Cookstown Guardians and the Appointment of Midwives.

The Local Government Board having urged the guardians of Cookstown, Co. Tyrone, to appoint a midwife for the Stewartstown district they declined, notwithstanding that the medical inspector of the Local Government Board attended their meeting and urged them to do so. The matter came up again at the weekly meeting of the guardians on Dec. 9th, when the chairman moved that steps should be taken to appoint a midwife for Stewartstown, but he was beaten by a majority of 20 votes to 4. The objection made to the appointment was that it meant the cost of £2 for each case, while it would be better for the guardians to employ a medical man to attend such cases and to give him the usual fee of 10*s.* The next step in the matter rests with the Local Government Board.

New Departments in the Royal Hospital, Belfast.

The Board of Management have just given their consent to a suggestion from the medical staff to establish a new special department for dermatology (the work to be done by one of the present staff), and to appoint two anæsthetists, whose duty it will be to administer ether, chloroform, &c. It is felt that the time has come to specialise in the administration of anæsthetics and also to teach students in such important medical duties.

The Ulster Medical Society.

The second meeting of this session was held in the Museum, Belfast, on Dec. 6th, Professor W. H. Thompson, the President, occupying the chair.—Professor J. W. Byers showed an Ovarian Cyst in the interior of which at one place, after removal, some papillomatous growths were detected. There was no sprouting through the cyst wall. The patient made an uninterrupted recovery, but two weeks afterwards a small papillomatous warty growth appeared in the wound. At the time of operation the peritoneum was healthy but vascular. Professor Byers also showed a large Fibroid Tumour enucleated from the right wall of the vagina. The patient, a married woman, aged 27 years, was confined of her third child in January, 1900, and had no difficulty at the birth. In the previous October she had first noticed a swelling in the vulva. A month before admission to the Royal Victoria Hospital (Nov. 12th, 1900) she had suffered from a foul-smelling discharge and the swelling had enlarged. On admission she was in a state of septic intoxication (sapræmia), with high fever and small pulse. Protruding from the

vulva was a decomposing tumour which bulged out the right side of the perineum and which had caused a perforation by sloughing immediately outside the greater labium. The tumour was attached by its base to the vaginal wall, from which it was enucleated, and was œdematous and larger than a fœtal head at term. It had no connexion with the cervix or uterus, which were natural in size, but were pushed upwards and to the left by the vaginal mass. The cavity out of which the tumour was shelled was brought together by sutures and gauze-packed. The patient made a good recovery. Professor Byers spoke of the rarity of vaginal fibroids; it was the first he had removed. He referred to A. R. Simpson's, Pozzi's, Breisky's, Lewers's, and Veit's articles on the subject.—Dr. John Campbell showed a Moveable Kidney removed by Lumbar Nephrectomy on account of advanced suppuration (probably tuberculous), a Fibroma of the Ovary (simulating a uterine fibroid on the back of that organ) removed by Vaginal Section, two Uteri removed by Vaginal Hysterectomy for Cancer of the Cervix, an Ovarian Cyst with Myomatous Degeneration, a Papillomatous Ovarian Cyst, and a Fibroid removed by Retroperitoneal Hysterectomy.—An interesting discussion followed, the special points referred to being the presence of malignancy in ovarian tumours, the frequency of moveable kidney, and the rarity of vaginal fibroids.—Dr. W. Calwell showed a Brain from a case of Hæmorrhage into the Pons and gave an account of the case. He also showed the specimens from a patient who had died with deep jaundice. No tumour could be discovered during life, but post mortem the head of the pancreas was invaded by a small malignant growth which completely compressed the bile-ducts.—Dr. V. G. L. Fielden read a paper on the Relative Value of the Various General Anæsthetics, in which he discussed fully the properties of nitrous oxide, chloroform, ether, A.C.E. mixture and methylene, and the use of morphia preceding chloroform.—A long discussion ensued in which Dr. John Campbell, Dr. A. B. Mitchell, Dr. Charles Kevin, Professor T. Sinclair, Dr. A. Fullerton, and Professor Byers took part.

Banbridge Union Hospital.

Mr. James Waddell has been appointed medical officer to the Banbridge Union Infirmary and Fever Hospital in succession to the late Dr. J. Hawthorne.

The late Professor Cuming, M.D. R.U.I.

On Dec. 14th, in the presence of many of the late Professor Cuming's colleagues and medical and personal friends, Mrs. Pirrie unveiled his portrait. Mrs. Pirrie has done much for medical charities in Belfast and was a most intimate friend and patient of Professor Cuming. The memorial portrait, which his admirers had determined to be the most suitable reminiscence of his connexion with Queen's College, Belfast, where he was Professor of Medicine, will remain in the Examination Hall of the College. The President of the College occupied the chair at the unveiling and speeches eulogistic of Professor Cuming were delivered. The portrait, which has been painted by a local artist, is a good likeness, and is to be hung in the Examination Hall in line with other pictures of former professors.

Dispensary Medical Officers' Holidays and Substitutes.

The Ballymoney Guardians have agreed to appoint a committee consisting of two members of each dispensary district to confer with the medical officers and, if possible, come to an arrangement with them, under which they will accept a certain fixed sum per annum, arranging for their own vacations and substitutes. The committee is to report to the board.

Dec. 15th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Phosphaturia in Dyspeptics.

M. ALBERT ROBIN, who is specially interested in the clinical chemistry of urine and also in the treatment of dyspepsia, read a most interesting paper at a recent meeting of the Academy of Medicine. The paper dealt with that class of patients who from time to time pass urine which is milky from the presence of a quantity of phosphate of lime in suspension. Up to now as a rule these patients have been described as prone to calculi, to phosphaturia, or to neurasthenia, whereas in reality they only suffer from atonic dyspepsia, either occasional or chronic, and exhibit in an exaggerated form a phenomenon which exists in a less pronounced form in the majority of atonic dyspeptics. Such patients may be divided into two classes, according as to whether their urine is simply milky or a chalky liquid looking somewhat gritty, the passage of which often gives rise to extremely painful vesico-urethral crises. These patients also present other groups of symptoms generally connected with the nervous, cardiac, cutaneous, or muscular system, the whole forming a very consistent physiological picture which the physician is soon easily able to recognise if he notes the gastric derangement which is generally overlooked but which is nevertheless always present in such cases. If an analysis be made of the contents of the stomach there will be found to be a considerable excess of hydrochloric acid with a slight amount of ferments. Peptonisation is efficiently performed but amylaceous digestion is most insufficient. The metabolism of nitrogenous materials is but slightly modified. These patients are not real phosphaturics, in the sense that the total quantity of phosphoric acid eliminated and calculated as so much per kilogramme of body weight in 24 hours is not as a rule increased, neither is its ratio to the total nitrogen. The form under which the acid is excreted is that of a bicalcic phosphate. It is this salt of lime which, passing out in the urine, makes it milky and a lessened acidity of the urine is one of the conditions which favour the occurrence of this deposit. An important point to notice is that this precipitation of phosphates may take place not only in the bladder but also in the pelvis and tubules of the kidney—a condition which may possibly lead to cystitis, pyelitis, pyelo-nephritis, and hæmaturia, while the irritation caused by the constant passage of the little crystals of calcium phosphate opens the door to sundry infections, as, for instance, that caused by a catheter. In these patients examination often reveals the presence of white corpuscles in the urinary sediment. They commonly suffer from albuminuria and anæmia. The treatment, said M. Robin, should be directed towards relieving the dyspepsia. The patient should be kept for eight days upon a strictly milk diet. Then the phosphaturia may be attacked by the administration during meals of a few drops of a mixture of sulphuric acid, nitric acid, and alcohol. The attacks of pain are best met by prescribing two or three tumblerfuls of some mineral water and the general nutrition should be attended to and tonics, such as iron, arsenic, and the hypophosphites, may be given.

A Coöperative Restaurant for Students.

A coöperative society has just been organised in Paris with a view to open in the Latin Quarter a restaurant for the exclusive use of students. This restaurant will be carried on under special conditions of a nature which will be eminently suitable to the student's purse, which is never too well furnished. The total capital is to be 30,000 francs, divided into 1200 shares of 25 francs each. The sum to be paid on application is one-tenth—i.e., 2·50 francs—being the smallest proportion allowed by the law to be paid on application, so that the poorest student will be able to apply. The remainder of the sum—namely, 22·50 francs—will be paid off by instalments of five centimes at every meal, so that after 450 meals, or in seven and a half months, the student, almost without knowing it, will have fully paid up his holding. The share will carry interest at the rate of 4 per cent., the maximum allowed by law whatever be the profits. The latter will be divided proportionally to the meals taken. This philanthropic notion has been warmly welcomed in university circles and the managing committee teems with the names of the most distinguished graduates. A meeting of shareholders will be held to decide sundry questions, such as whether meals shall be served *à la carté* or *à prix fixe*, whether past students shall participate, and whether students may bring guests, and the like. The provisional committee hopes to open the restaurant in February next. The idea is derived from that of a working men's society at Lille which was opened eight years ago. Commencing with ten members and a capital of ten francs, it now numbers 6000 families and possesses a recreation room, a library, a benefit club, a savings bank, a brewery, a bakery, and other branches. The bakery in 1899 made a profit of 200,000 francs. These results are encouraging for French students.

The Small-pox Epidemic.

The epidemic of small-pox to which I have already

referred shows no sign of decreasing. During the past week there have been 17 deaths, which is as high a death-rate as any recorded since the beginning of the epidemic. The incidence of the disease is particularly heavy in the *arrondissements* of the north and east. The prefect of police is carrying through vigorous measures for revaccination, and the stations for free revaccination which have been opened at all the hospitals and at most of the *mairies* are thronged all day long.

Dec. 19th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Siege of the Peking Legations.

DR. VELDE, the medical officer to the German Embassy in Peking, has published in the *Deutsche Medicinische Wochenschrift* an account of the siege of the embassies by the Chinese during last June, July, and part of August. His narrative, which is highly interesting from a general as well as from a medical point of view, states that the Europeans besieged in the embassies numbered 1000, of whom 400 were officers and men of the international forces and 200 were women and children. Moreover, about 3000 Chinese Christians had come to the international area for protection. The women and children were all brought to the British Embassy, which was less exposed than the other embassies to the Chinese shells. The food-supply of the besieged Europeans was generally sufficient but very monotonous, consisting principally of horseflesh, rice, and bread, whilst milk and fresh vegetables were altogether wanting. Some eggs were brought into the embassies surreptitiously during the last stage of the siege. On the arrival of the relieving force food for about a fortnight still remained. In the Peitang Cathedral, which was also besieged by the Chinese but had no communication whatever with the embassies during these events, the quantity of food remaining when the siege was raised was only 55 lb. of rice for no less than 3000 people. Hygienic measures were taken from the beginning with a view to the prevention of an epidemic. To this end the Chinese families were isolated as much as possible from the Europeans, and the surroundings of the water fountains were kept scrupulously clean. Arrangements were also made for the disposal of fæcal matter and rubbish and a place of interment was provided. The health of the besieged was relatively good, but intestinal complaints were prevalent, especially in infants, owing to the want of milk. Five children died from cholerine and there were 15 cases of dysentery with two deaths exclusively among certain sailors whose commanding officer, although repeatedly warned of the risk he was running, allowed his men to drink from a suspected water-fountain in order, as he said, to accustom them to it. There were four cases of enteric fever with one death, and four cases of scarlet fever, also with one death. An international hospital was established in the precincts of the chancery of the British Embassy, containing a room for operations and five wards for patients. Linen and beds were provided by spontaneous gifts of the besieged families; surgical instruments and dressing materials were contributed by the German and British surgeons. The supply of cotton-wool and gauze failed towards the end of the seige, so that peat (Torf) and saw-dust sterilised by steam had to be used as dressings. Dr. Poole, the medical officer to the British Embassy, and Dr. Velde were in charge of the hospital, the other medical men attending the patients in the other embassies. The medical men were assisted by four men respectively from the British, German, Italian, and American army or navy medical corps. An English trained nurse was at the head of the nursing staff, consisting of four English and American nurses, two French nuns, and six other ladies. Dr. Velde speaks in high commendation of the work performed by them. In the hospital six different languages (English, German, French, Italian, Russian, and Japanese) were spoken, and Chinese had to be used in speaking to the servants. The Russian ladies, who all spoke several languages, proved to be very valuable as interpreters. The hospital was opened on June 20th and closed on August 18th. The number of patients was 166, of whom five were already dead when admitted, 17 died from wounds (13 of them within 24 hours), and two died from dysentery, so that the number of deaths was 24. 126 of the patients were wounded, 40 were sick. As to their nationality there were 55 British, 21 Germans, 18 Russians, 17 Americans, 17 French, 17 Italians, 14 Japanese, six Austrians, and one Dutchman. The weapons used by the Chinese were of every description, from the most antiquated to the most modern rifles and artillery. Fortunately they were very inexpert in using them, so that the number of wounded was relatively small. 97 men were wounded by rifle bullets, 18 by artillery fire, 10 by stones, and one by a lance. Of the wounds 33 were in the head, seven in the neck, 13 in the back and thorax, six in the abdomen, 37 in the shoulder and upper extremity, and 41 in the lower extremity. The principle adopted in the treatment of the wound[illegible] to cleanse them and to apply an antiseptic dressing without plugging the wound. The results were very favourable. Apart from two cases of tetanus no complication happened. Nine primary operations were performed with eight deaths, the operations being three tracheotomies, one laryngotomy, one laparotomy, two cases of trephining, and two cases of ligature of large arteries. Ten secondary operations were performed without a death happening. In general the wounds made by rifle bullets were not very severe, but those made by the Mannlicher bullets were attended with laceration of the surrounding parts owing to the fact that the Chinese had not kept the cartridges in closed boxes but had allowed them to become damp. The casing of the bullets therefore became corroded and they produced explosive effects resembling those of the Dum-Dum bullets.

Illegitimate Children.

At a meeting of the Berlin Society for Public Health Dr. Neumann gave an account of an interesting investigation made by him as to the condition of illegitimate children. With the assistance of various associations, public officials, &c., he was enabled to collect full particulars relative to no less than 7229 children born out of wedlock in 1897. He noted whether the child was born in a hospital, an asylum, &c., or in a private house, whether it was subsequently legitimatised by the marriage of the parents, whether the mother took care of it afterwards or whether it was left in charge of other persons or handed over to the district council for orphans, whether it was alive after one year and if not at what age it died. Dr. Neumann has obtained the remarkable result that about 50 per cent. of these children were taken care of during the first year of life either by their mothers or by both parents, and that about 5000 out of 7200 required no assistance from the district councils for orphans. Dr. Neumann then made some recommendations, the principal one being that homes should be established where pregnant women could live during the last months of pregnancy. Unmarried women, after they were discharged from the lying-in hospitals, ought to be provided for until they were able to resume their employment. Illegitimate children ought to be attended by specially-appointed medical men and nurses under the control of the municipal authorities, and a special council ought to be formed whose duty would be to look after these children, as has already been done in Leipzig. Owing to the fact that assistance was required for only about 30 per cent. of the illegitimate children the work of the council and the expenses incurred by the municipalities would be less than might be expected.

Dec. 17th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

An Outbreak of Weil's Disease.

SEVERAL cases of this malady, some of them fatal, have lately been seen in the Roman hospitals. In Italy morbus Weilii is known as febrile jaundice. The fever lasts as a rule 8, 10, or 12 days, and besides jaundice is associated with muscular pains and tenderness, occasional diarrhœa, albuminuria, and polyuria. The temperature tends to oscillate, free perspirations accompanying each fall. There is no characteristic rash, but roseolous spots are occasionally present. As the fever comes to an end the other symptoms also subside, but after an apyrexial interval of some days a relapse usually occurs and the whole syndrome is repeated. There may even be a second relapse. Grave cases are indicated by signs of cardiac weakness, subcutaneous hæmorrhages, and diminution of urine with increase of albumin and

abundant tube-casts. Nothing has been found which throws light upon the etiology of the complaint or accounts for its infectious character, nor do the pathological appearances satisfactorily explain the jaundice, the biliary passages presenting nothing abnormal.

The Legislation as to Foreign Practitioners.

The Parliamentary Commission, consisting of six deputies, three of whom are medical men, appointed to examine Santini's draft law for the regulation of foreign medical practice in Italy has accepted the Bill as it stands and has rejected an amendment by the Minister for Foreign Affairs, Visconti Venosta, proposing that existing rights be respected. The Bill will next be submitted to the Chamber of Deputies which it is thought will pass it with little or no alteration. Some opposition is expected in the Senate, but that body is not likely to negative a measure which has passed the Representative Chamber unless for strong reasons of a political kind. The agitation against the foreign medical men is thus approaching its climax, and unless the unexpected happens will soon have attained its object, which is the total abolition of foreign practice, and not the ostensible one of securing reciprocity with other countries. The refusal to respect the rights of those already established in practice will have ruinous effects upon the older men and is a very serious matter for all concerned. Many still find it impossible to believe that the Italian Parliament will perpetrate such a cruel injustice as thus suddenly and without warning to deprive a class of men of their means of subsistence in order to gratify the malignant jealousy of the few bigoted agitators who pretend to represent the medical profession here and who, by persistent abuse, unscrupulous misrepresentations, and false accusations, have done their worst to bring the foreign medical man into disrepute with Government and people. But, unfortunately, it seems only too likely that, yielding to cunning appeals to their patriotism and mostly indifferent to the interests of a class of whom they hear nothing but abuse, the legislature will pass the proposed law without making any provision against the cruel hardships which it will certainly occasion.

Dec. 17th.

CONSTANTINOPLE.

(FROM OUR OWN CORRESPONDENT.)

The International Sanitary Board.

ONE of the principal subjects of discussion at the present time is the difficulty which has arisen at the International Sanitary Board. Two sittings of the International Sanitary Commission or Superior Sanitary Council have already been interrupted by the foreign sanitary representatives leaving—a course which the ambassadors of their respective countries had instructed them to take because the Turkish Government seem to have forgotten the special regulations defining the composition and work of the sanitary board. The management of the Turkish Sanitary Board is in the hands of a council consisting of 21 members, 13 of whom are foreigners representing the following 13 foreign Governments: Great Britain, Germany, France, Austria, Russia, Italy, Greece, Spain, Holland, Belgium, Sweden, Persia, and the United States of America. The 13 foreign members have each the degree of M.D. except the representatives of Belgium and Sweden. Of the eight members who represent the Turkish Government only three are medical men and only two are not Mahomedans. Of the six Mahomedans only one is a medical man. The Turkish representatives who are not Mahomedans must, according to the stipulations, be medical men: they are the inspector-general of the sanitary service and the inspector-adjoint. Both of them have become well known to the sanitary world, having represented the Turkish Government at the various sanitary conferences held in Dresden, Paris, and Venice in order to decide on the measures to be adopted for the repression of cholera and plague. The inspector-adjoint, Dr. Vitalis, died about three weeks ago in Freiburg after an operation, and the Turkish Government thought that the vacancy thus created might be filled by the appointment of a successor who was not a medical man and had never been in the sanitary service, but who had up to that time been an official in the custom-house. The Turkish Government thereby attempted to infringe the regulations relative to the sanitary board, for these regulations provide that the sanitary inspectors as well as all the officials of the sanitary service shall be appointed by the Superior Sanitary Council. This council meets every Tuesday, and at the meeting held on Dec. 4th a memorandum by the 12 sanitary representatives was read, appointing as inspector-adjoint Dr. Duca Bey, who at present holds the position of Turkish sanitary delegate to the Alexandria International Sanitary Council. He has been an official of the sanitary service for the last 27 years and has visited various provinces of the Turkish empire where epidemics happened to be in progress. Among his services in this respect may be mentioned his work during the epidemic of cholera in Syria in 1875, the epidemic of plague in Mesopotamia, and the epidemic of plague in the province of Yemen in 1880; he also superintended the establishment of the lazaretto of Camaran in the Red Sea in 1883. All the members of the Superior Sanitary Council, the senior of whom is Dr. Mordtmann, the German representative, are of opinion that Dr. Duca Bey is the right man for the place, and the ambassadors have already signified their approval of the appointment. The Sultan has still to sanction it, and it remains to be seen whether he will find a way of defeating the intentions of the Superior Sanitary Council supported by the ambassadors, and of maintaining the appointment of the custom-house official to be a member of the sanitary board. It would not be astonishing if he should prove to be successful. The vice-president of the Superior Sanitary Council is a very respectable person, a novelist and a poet, but he is not a medical man; of the other Turkish members one is the chief accountant of the sanitary board, one is the secretary-general, and one is a medical man, as already stated. Their salary is about £T50 per month, the vice-president's being £T80 per month, paid regularly out of the sanitary funds. During the year completed at the end of February, 1900, the revenues of the Turkish sanitary administration were 6,510,920 piastres, representing about £60,000 sterling. Of this sum 50 per cent. was paid by the British, 15 per cent. by the Greeks, and the remainder by the other nationalities.

Persian Hospital in Constantinople.

In THE LANCET of Oct. 27th, p. 1245, I mentioned that the Shah of Persia during his visit to Constantinople granted £T500 to the Persian Hospital which is to be established here and he has also intimated his intention of paying a like amount annually. The hospital will at first have 25 beds, and only poor Persians will be treated gratuitously. Patients belonging to other nationalities will only be admitted on payment. The same practice is followed in the other foreign hospitals here, except in the British Hospital, where British sailors are almost the only patients, British subjects of other occupations being very rarely admitted and women never.

The Pasteur Institute.

In THE LANCET of Sept. 8th, p. 780, I remarked with respect to the Pasteur Institute in Constantinople that the former director, Dr. Zoeros Pasha, had been removed and succeeded by Dr. Mari in consequence of the death of an officer of the Turkish army who had been bitten by a rabid dog but not sent to the Pasteur Institute for treatment until the symptoms of rabies had manifested themselves. Since the removal of Dr. Zoeros Pasha many deaths from rabies have occurred in spite of treatment. A fresh case was reported on Dec. 7th, the patient being an Albanian who received antirabic treatment in the Pasteur Institute, but three days after being discharged he showed symptoms of rabies which eventually proved fatal.

Dec. 14th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Small-pox in New York City.

SMALL-POX has broken out on a somewhat large scale on the west side of New York city. As a matter of fact there must have been several cases of the disease existing for some little time, but it was not until Thursday, Nov. 29th, that the outbreak was sufficiently alarming to be brought to the notice of the health authorities. On that day upwards of 30 persons, mostly children, were found to be suffering from the disease, and that the contagion will spread further seems certain. The epidemic is believed to have originated from

two negro vaudevillists from Pittsburg. The authorities declare that there is no reason for unusual alarm, but the occurrence will tend to impress upon people who may have imagined themselves outside the zone of possible contagion the wisdom of having themselves and their families vaccinated. The vaccinators are now working by night and day in the tenements of the district infected. At present, so far as is known, the malady is confined to one block, most of the tenants of which are negroes, and the victims thus far are mainly children. Dr. Benedict of the Health Board stated as his opinion that further cases must be inevitably looked for in the course of the next few weeks as the exposure had been too great to admit of the hope that all the cases had been already reported. The action of the Health Board in epidemics of a contagious nature is judiciously energetic. When a case of small-pox is discovered every inhabitant of the tenement or dwelling-house is vaccinated, the building is fumigated from top to bottom, and the inspectors visit it once in every 24 hours, keeping up such visits for two or three weeks. There is small room for wonder that small-pox has been brought to this city, as there are many cases in the northern part of the State and in Maryland on the east and south. Communication both by ship and train takes place between these localities and New York every day. It is said that so many cases have not been discovered in one day since an outbreak which occurred about eight years ago. The reason given for the disease gaining so much ground before detection is that the poor population inhabiting the district regard sickness, especially among children, as of little account, and that until it became too grave to be longer neglected parents saw no necessity for calling in a medical man, and thus many were exposed ere medical aid was invoked. It is, however, satisfactory to state that the physicians of the Board of Health declare that there is no cause for needless alarm and express the opinion that the course of the disease will be checked and a wide-spread epidemic be avoided.

Tainted Water-supply of New York City.

The inhabitants of this city have been seriously alarmed for the past three or four weeks at the condition of the water-supply. The water has had a decidedly unpleasant, oily, fishy taste in addition to being very turbid. Things have come at last to such a pass that an investigation has been demanded and the city has appointed a commission to make an exhaustive inquiry into the whole matter. This commission commenced its session on Nov. 26th, when several witnesses were called upon to give evidence. Among others were Dr. George F. Shrady, editor of the *Medical Record*, and Dr. Charles F. Roberts, chief sanitary inspector of the New York Board of Health. Dr. Shrady was not called as an expert, but rather in the capacity of a private citizen. The proceedings of the commission were *in camerâ*, but we believe that both Dr. Shrady and Dr. Roberts gave it as their opinion that while there was no denying that the water was unpalatable to a degree—in fact, almost nauseous—it was not especially prejudicial to the health of the consumers. Dr. Shrady suggested, and Dr. Roberts recommended as a remedy, that a filtration plant should be constructed. The reason given, and undoubtedly the right one, for the contaminated water is the long-continued drought. It always happens that in May and November the water department has to blow off the hydrants to get rid of the accumulation of organic matter. This year the trouble has been aggravated owing to the scant supply of water in the lakes and reservoirs. This is the season of the year when the fish move. As is well known they always seek deep water, and for months past they have have been compelled to go lower and lower. In moving they stir up the sediment, and the water becomes charged with organic matter. Again, the bottom of the reservoirs and lakes are more or less covered with vegetable growth, and when the water is very low some of the vegetable matter becomes decomposed and communicates its taste to the water. That such is the case has been amply demonstrated within the past few days. On Nov. 24th heavy rain began in New York and the neighbourhood which lasted off and on until almost three inches had fallen. As soon as the water in the reservoirs had risen considerably the supply was much less turbid and somewhat less tainted. The fear has been wide-spread that the water contained germs of disease and rumours have been current that an outbreak of typhoid fever might be anticipated. Dr. Murphy, president of the Board of Health, ordered the water to be examined by bacteriologists and chemists. Dr. Hermann F. Biggs, pathologist to the Board of Health, said that bacteriological and chemical analyses had not revealed any disease-breeding germs in the water; vegetable organisms were found, but nothing particularly deleterious to health. Illnesses caused by digestive disturbances might result but there would be no likelihood of an epidemic of typhoid fever. Of course this is satisfactory as far as it goes and has reassured the inhabitants of New York, but it is plainly evident that steps should be taken to prevent any tainting of water which is intended for domestic consumption, however harmless. It would appear that if the suggestion of Dr. Shrady and Dr. Roberts that a filtration plant should be established in New York were carried out all fear of danger or unpleasantness from drinking the New York water would be obviated. The expense, it is true, would be large. It is estimated that a filtration plant sufficient for Greater New York would cost a sum of about $15,000,000 (£3,000,000), but after all a system which ensured a pure water-supply would be well worth the outlay. By some it is urged that the only effectual remedy would be to get a larger water-supply somewhere. If, however, this were done the water would most probably have to be filtered. The conclusions of the commission after it has received and duly weighed the necessary evidence will be awaited with much interest. It seems certain that radical measures will be taken to procure for New York a pure as well as bountiful water-supply. The Health Board of New York, which is a model of what health boards should be, has in this matter, as in every question affecting the hygiene of the city, exerted itself to the utmost.

Dec. 12th.

Obituary.

JAMES MICHELL WINN, M.D. GLASG., M.R.C.P. LOND.

WE regret to announce the death of this gentleman, one of the fathers of the profession, at his residence, 87, Goldhurst-terrace, Hampstead, on Dec. 8th in his ninety-second year. Dr. Winn was the oldest M.D. of Glasgow University and also the fourth in the list of the Members of the Royal College of Physicians of London, being the eldest in point of age, although there is a senior to him by six months among the Fellows of the College. Dr. Winn was born in the parish of Budock in Cornwall on Dec. 25th, 1808. When about five years of age he went to reside with his parents at Lisbon and was a resident in the Peninsula when the battle of Vittoria was fought in 1813. On returning to England his family resided for several years in London. Dr. Winn was educated at the Stockwell Park Academy. He commenced his medical studies at St. George's Hospital under Sir Benjamin Brodie and Dr. Chambers, who were then on the staff of that hospital. On leaving St. George's Hospital he went, in 1832, to the University of Glasgow to study for the M.D. degree. At that time the cholera had made its first appearance in England and the average daily deaths at Glasgow amounted to upwards of 100. This gave Dr. Winn a good opportunity for studying the nature and treatment of that complaint at the Glasgow Cholera Hospital. On returning to England he commenced to practise as a consulting physician and was appointed honorary physician to the Royal Cornwall Infirmary at Truro, a position which he retained for 14 years. In 1852 he came to London, where he made psychology his chief study and contributed numerous articles on that subject to the *Journal of Psychological Medicine*, in which he combated the doctrines of the materialistic school. He also published treatises on "Materialism" and "Collapse of Scientific Atheism." He had written previously to this, in 1848, "A Critical Treatise on the General Paralysis of the Insane," which was very favourably referred to by Dr. Conolly in his Croonian lectures delivered by him before the Royal College of Physicians of London. Dr. Winn's chief work was on the "Nature and Treatment of Hereditary Disease," published in 1869. In this he propounded the theory that all hereditary disease was interchangeable—in other words, mutually convertible. From this generalisation Dr. Winn deduced rules for the regulation of marriages. The late Sir Thomas Watson, in a letter to Dr. Winn, said, referring to this theory of hereditary inter-changeableness in disease: "You appear to me to be

probably correct and suggest to me a wide practical application." Dr. Winn's last work was published a few years ago and in this brochure he made his final onslaught on the materialists. Dr. Winn was buried at Kensal-green Cemetery on Dec 12th. He will be remembered as a devoted Christian, kind to those in adversity, and a peace-maker, and his death will be regretted by all who knew him.

CHARLES SEYMOUR STRICKLAND DUNLOP, L.R.C.P. LOND., M.R.C.S. ENG.

IN our list of deaths to-day on page 1852 is the name of Mr. Charles Seymour Strickland Dunlop. We are very sorry to have to record Mr. Dunlop's death. He was the son of Dr. Andrew Dunlop of Jersey who is not only much esteemed in the profession but who had eight sons, all in Her Majesty's service and most of them in Africa. Two of them were in Ladysmith during the long siege. One of them unfortunately died from enteric fever, the other did valuable work as transport officer in Cæsar's Camp. And now we have to notice the death of another son near Lagos. Mr. C. S. S. Dunlop was the eldest son, a member of Dr. Dunlop's own profession, to whom he looked for help at home, for, according to his contract, he should have left West Africa on Sept. 17th.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Duplouy, formerly chief of the French Naval Medical Department.—Dr. Deroide, Professor of Pharmacy in Lille.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having passed the necessary examinations at the October Quarterly Examination have been admitted Members of the College and have received their diplomas—viz.:

Harry Cole Alderman, Yorkshire College and Royal Infirmary, Leeds; Percy Francis Alderson, Middlesex Hospital; Arthur Ponsonby Moore Anderson and Arthur de Chair Baker, Cambridge University and London Hospital; Walter Biggar Bannerman, London Hospital; Douglas James Bedford, Cambridge University, St. Thomas's Hospital, and Mason University College, Birmingham; Herbert Arthur Beetham, Yorkshire College and General Infirmary, Leeds; Kenneth Hugh Bennett and Sidney Brée, University College Hospital; Henry Arthur Bramsdon Bransbury, St. George's Hospital; Henry Braund and James Alfred Butler, Guy's Hospital; Richard Henry Botham, King's College Hospital; Allen Bathurst Brown and Charles Richard Verling Brown, St. Bartholomew's Hospital; Frederic Ernest Brunner, Cambridge University and St. Bartholomew's Hospital; Reginald Shirley Burd, Mason University College, Queen's, and General Hospitals, Birmingham; Adrian Caddy, St. George's Hospital; Percy William Leopold Camps, Guy's Hospital; Frederick Charles Carlé, King's College Hospital; Hector Alfred Colwell, St. Bartholomew's Hospital; Herbert Edward Crawley, Oxford University and St. Mary's Hospital; David Morgan Davies, St Mungo's College, Glasgow, and London Hospital; William Stewart Dickie, St. Mungo's College and Royal Infirmary, Glasgow; Robert Dunstan, London Hospital; Arthur Edmunds, King's College Hospital; Frank Payne Edwards, Cambridge University and Westminster Hospital; Gerald Dundas Edwards, Cambridge, Bristol, and St. George's Hospital; Reginald Ambrose Facey, Percy Reginald Fort, and Arthur Herbert Foster, St. Mary's Hospital; George Victor Hamlyn Fairhall, Melbourne University and Westminster Hospital; Louis Patrick Farrell, Dalhousie University and University College Hospital; Edgar Hall Felton and David Forsyth, Guy's Hospital; Benjamin Gregory Fiddian, University College, Cardiff, and Charing Cross Hospital; Welby Earle Fisher, University of Dunedin, New Zealand, and University College Hospital; Cecil Hughes Francis-Williams, St. George's Hospital; John Stansfield Gayner, St. Bartholomew's Hospital; Kenneth Weldon Goadby, Guy's Hospital; Lachlan Gollan, University of Melbourne and St. Mungo's College and Royal Infirmary, Glasgow; Ernest Victor Gostling, Cambridge University and St. Thomas's Hospital; John Maxwell Gover, University of Durham; William Henry Clayton Greene, Cambridge University and St. Mary's Hospital; William Willrid Halsted, St. Thomas's Hospital; George Hamilton, University of Dunedin, New Zealand, and Middlesex Hospital; Harold Charles Harrison, Firth College, Sheffield, and St. Bartholomew's Hospital; Charles Montague Heanley, St. George's Hospital; Charles Edward Hicks and Stanley Hodgson, Guy's Hospital; Cyril Evelyn Hogan, St. Bartholomew's Hospital; Ernest Henry Hogg, Middlesex Hospital; Hugh Hughes, University College and Royal Infirmary, Liverpool; Thomas Hugh James Ellis Hughes, King's College and St. Mary's Hospital; Edmund Henderson Hunt, Oxford University and St. Bartholomew's Hospital; Bertram Fowler Hussey, St. Mary's Hospital; Robert Jaques, University College, Liverpool, and King's College Hospital; Edward Angas Johnson, Adelaide and Melbourne Universities, St. Bartholomew's and London Hospitals; Duncan Matheson Johnston, Durham University and St. Bartholomew's Hospital; Ernest William Julius Ladell, Edward Vaughan Lindsey, John Aitken Lloyd, and Francis Henry Lowe, St. Bartholomew's Hospital; Peter N. Lakshmanan, University of Madras and King's College Hospital; Brinley Richard Lloyd, University College, Cardiff, and Charing Cross Hospital; Richard Ernest Lloyd, University College Hospital; Ernest John Manning, St. Mary's Hospital; James Cole Marshall, and Samuel Mason, St. Bartholomew's Hospital; Talbot Carter Mitchell, Yorkshire College and General Infirmary, Leeds; Harry Tudor Newling, Royal Infirmary, Durham, and St. Mary's Hospital; William Walker Maxwell, Edinburgh University and King's College Hospital; John Campin Newman, Cambridge University and St. Bartholomew's Hospital; John Chalmers Norton, University College and General Infirmary, Bristol; James Christopher Oates, Mason College, Queen's and General Hospitals, Birmingham; William Sidney Page, St. Mary's Hospital; Hugh McDowall Parrott, Guy's Hospital; Eustace Murray Bruce Payne, St. Bartholomew's Hospital; John Shirley Steele Perkins, Cambridge University and Guy's Hospital; Philip Meyler Perkins, Durham University and St. Bartholomew's Hospital; Miles Harris Phillips, University College and Royal Infirmary, Bristol; Lionel James Picton, Oxford University and St. Bartholomew's Hospital; Georges Woodyatt Procter, Durham University and Middlesex Hospital; John Percy Race, Owens College and Royal Infirmary, Manchester; John Evans Richards, Charing Cross Hospital; Bernard Hamilton St. Clair Roberts, Mason College, Queen's and General Hospitals, Birmingham; Reginald Percy Richardson, Durham University and Westminster Hospital; Alfred Reginald Roche, Cambridge University and Westminster Hospital; Edward Norman Tilly Rogers, Middlesex Hospital; Frederick Colin Rogers, St. Mary's Hospital; William Edward Ruttledge and Thomas Copeland Savage, University College Hospital; Henry Scanlan, McGill College, Montreal, and St. Bartholomew's Hospital; Robert Westley Shaw, Western University, Ontario, and University College; Francis Wheler Sime, Durham University and Guy's Hospital; Fred Algernon Simpson, Cambridge University, St. Mary's and St. George's Hospitals; Frank Blenkinsopp Skerrett, Owens College and Royal Infirmary, Manchester, and St. Thomas's Hospital; Robert William Innes Smith, Edinburgh University and King's College Hospital; Charles Duncan Soutter, Mason University College, Queen's and General Hospital, Birmingham; Harold Robert Dacre Spitta, St. George's Hospital and Durham University; Louis Edward Stamm, Guy's Hospital; Charles Mon Stewart, University of Toronto and University College Hospital; Fred Stuart, University of Durham and St. George's Hospital; Walter James Suumann, Cambridge University and St. George's Hospital; John Tattersall, St. Mary's Hospital; Arthur James Tayler, King's College Hospital; Evelyn Davison Telford, Cambridge University, Owens College, and Royal Infirmary, Manchester; William Murray Thomas, Guy's Hospital; George William Thompson, Edinburgh University; Robert Cyril Turnbull, London Hospital; Alexander Robert Tweedie, St. Bartholomew's Hospital; Geoffrey Allen Upcott-Gill, University College Hospital; Charles Ernest West, Oxford University and St. Bartholomew's Hospital; Charles Vaughan White, St. Thomas's Hospital; Clare Aveling Wiggins, St. Mary's Hospital; Archibald Robert Barclay Williamson, Queen's University, Kingston, Canada; and Thomas James White, Guy's Hospital.

UNIVERSITY OF CAMBRIDGE.—At the examinations for Medical and Surgical Degrees, Michaelmas Term, the following candidates were successful:—

FIRST EXAMINATION.

Part I.

Chemistry and Physics.—A. G. Atkinson, Trinity; G. F. S. Bailey, Caius; J. H. Board, Pembroke; S. Churchill, Trinity; E. B. Clayton and A. I. Cooke, Caius; W. D. Coplestone, Jesus; H. B. Corry, Caius; G. H. Drew, Christ's; H. B. Billison, Caius; D. Embleton and H. J. Fardon, B.A., Christ's. H. J. Gauvain and S. Gooding, St. John's; J. W. Grice and F. W. W. Griffin, King's; M. Grundy, St. John's; T. S. Heie, Emmanuel; A. L. Hetherington, Trinity; V. C. Honeybourne, St. John's; N. G. Horner, Caius; C. E. M. Jones, King's; P. P. Laidlaw, St. John's; K. A. Lees, King's; L. F. G. Lewis, Christ's; C. Lillingston, Pembroke; J. W. Linnell, St. John's; P. C. Litchfield, Trinity Hall; R. B. Lloyd, Emmanuel; S. G. Luker, Pembroke; S. G. MacDonald, St. John's; L. H. L. MacKenzie, Trinity; H. W. Moxon, St. John's; H. F. G. Noyes, Caius; G. G. Packe, Trinity; H. A. Pontifex, Pembroke; J. M. Postlethwaite, Emmanuel; R. L. Rawlinson, Trinity; E. Sandbach, King's; W. H. Simpson, Caius; J. M. Smith, Christ's; A. H. C. Suhr, Caius; W. H. R. Sutton, Downing; E. Svensson, Caius; H. H. Taylor, Pembroke; C. B. Ticehurst, St. John's; R. Wade, Christ's; S. L. Walker, Sidney Sussex; G. H. H. Waylen, King's; H. P. Weaver, B.A., Trinity; and O. K. Wright and R. F. Young, Christ's.

Part II.

Elementary Biology.—A. G. Atkinson, Trinity; G. F. S. Bailey, Caius; G. B. Bartlett, Sidney Sussex; R. L. Barwick, B.A., Christ's; A. E. Bonny, Sidney Sussex; H. A. Browning, St. John's; R. Burgess, Caius; A. F. Burton, Christ's; C. St A. Coles, Trinity; W. D. Coplestone, Jesus; G. W. Craig, Emmanuel; W. F. Denning, Trinity; G. H. Drew and D. Embleton, Christ's; H. J. Gauvain, St. John's; J. L. Graham-Jones, Emmanuel; F. W. W. Griffin, King's; M. Grundy, St. John's; W. H. Hodgson, Christ's; C. J. R. Hoffmeister, Caius; V. C. Honeybourne, St. John's; N. G. Horner, Caius; P. P. Laidlaw, St. John's; K. A. Lees, King's; R. B. Lloyd, Emmanuel; L. H. L. Mackenzie, Trinity; R. M. Miller, B.A., Clare; H. W. Moxon, St. John's; E. V. Oulton, Christ's; H. A. Pontifex, Pembroke; R. L. Rawlinson, Trinity; E. Sandbach, King's; E. F. Skinner, Corpus Christie; J. M. Smith, Christ's; B. S. Taylor, M.A., Clare; C. B. Ticehurst, St. John's; C. H. Treadgold, Clare; J. A. Venning, Trinity; B. Wahby, Non-Collegiate; S. L. Walker, Sidney Sussex; D. R. P.

Walther, Pembroke; E. G. Wheat, Christ's; and A. E. Wilson-Hird, Clare.

SECOND EXAMINATION.

Part I.

Pharmaceutical Chemistry.—E. E. Atkin, Caius; J. B. Banister, Jesus; S. Barradell-Smith, St. John's; E. Beaton, Caius; E. M. Brown, B.A., Pembroke; J. W. Chell, St. John's; H. M. Clarke B.A., and H. P. Crampton, B.A., Clare; F. D. Crew, B.A., Emmanuel; H. M. Davies, B.A., and C. E. Droop, B.A., Trinity; T. W. Dunn, Caius; R. G. Elwell, B.A., Trinity; A. H. Fardon, Christ's; J. N. F. Fergusson, St. John's; R. L. Gamlen, Caius; H. P. B. Gough, Sidney Sussex; W. B. Grandage, Clare; J. R. C. Greenlees, St. John's; J. M. P. Grell, H. Selwyn; C. R. F. Hall, B.A., Trinity; H. S. Hall, Pembroke; A. W. Hayward, St. John's; R. A. P. Hill, Caius; W. R. Honeyburne, B.A., Peterhouse; B. L. Hopper, B.A., Caius; C. W. Hutt, Trinity; J. B. Irving, B.A., and Q. S. Keat, St. John's; W. D. Keyworth, H. Selwyn; B. T. Lang, Trinity; W. Lowe, B.A., Caius; F. P. Luard, Downing; J. McIntyre, King's; H. F. Marris, B.A., and A. Morris, B.A., Caius; T. M. Neatby, M.A., St. John's; F. W. M. Palmer, B.A., Jesus; W. O. Pitt and R. Puttock, B.A., Emmanuel; F. P. Roberts, B.A., Caius; D. W. Roy, Sidney Sussex; R. B. S. Sewell, Christ's; E. W. Sheaf, B.A., Downing; P. H. Smith, Pembroke; P. L. Stallard, Caius; B. H. Stewart, B.A., Jesus; C. Strickland, Caius; D. W. Tacy, B.A., Christ's; R. S. Taylor, Downing; H. A. R. E. Unwin, H. Selwyn; H. B. Weir, Trinity; E. Wight, B.A., Sidney Sussex; W. P. Williams, Downing; J. K. Willis, Queens'; and L. Worrall, B.A., Christ's.

THIRD EXAMINATION.

Part I.

Surgery and Midwifery.—H. St A. Alder, B.A., Pembroke; A. P. M. Anderson, B.A., Trinity; B. L. T. Barnett, M.A., St. John's; J. Barnicot, B.A., Pembroke; A. G. Bate, B.A., King's; S. Bousfield, M.A., Caius; A. H. Brehaut, B.A., H. Selwyn; H. O. Butler, B.A., and C. de L. Carey, B.A., Emmanuel; C. J. Coleman, B.A., Trinity; A. J. Fairlie-Clarke, B.A., Emmanuel; H. Gordon-Smith, B.A., Trinity; A. W. Greig, B.A., Jesus; W. Hill, B.A., Emmanuel; A. E. Hodder, B.A., King's; E. H. Kitchin, B.A., Downing; J. L. Lock, B.A., Caius; G. W. Micklethwaite, M.A., Trinity; F. H. Murray, B.A., St. John's; H. Spurrier, B.A., Caius; J. Stirling-Hamilton, B.A., Jesus; A. H. Style, B.A., Emmanuel; H. E. Symes-Thompson, M.A., Christ's; A. E. Taylor, B.A., Downing; N. F. Ticehurst, M.A., Clare; B. L. Thurlow, B.A., Caius; E. G. Wales, B.A., Downing; and F. K. Weaver, B.A., and H. H. Weir, Trinity.

FOREIGN UNIVERSITY INTELLIGENCE.—*Budapest:* The Hungarian Ministry of Education has decided to build an Institute of General and Experimental Pathology and Therapeutics; the chair of Children's Diseases, which has hitherto been filled by an extraordinary or assistant professor only, is to be raised to the rank of an "ordinary" professorinte.—*Chicago Medical College:* Dr. John B. Murphy has been appointed to the chair of Surgery.—*Dorpat:* Dr. Raehlmann has resigned the chair of Ophthalmology and Dr. Jewicki of Moscow has been appointed in his place.—*Gratz:* Dr. Meinhard Pfaundler has been recognised as *privat-docent* of Children's Diseases.—*Groningen:* Dr. Wenckelbach of Utrecht has been appointed Professor of Clinical Medicine.—*Kiel:* Dr. Ernst Siemerling of Tübingen has been appointed to the chair of Psychiatry.—*Lemberg:* Dr. Victor Wehr, *privat-docent* of Surgery, has been promoted to an Extraordinary Professorship.—*Paris:* Dr. Brissaud, Professor of the History of Medicine, has been appointed to the chair of Medical Pathology.—*Strasburg:* Dr. Goltz, Professor of Physiology and Director of the Physiological Institute, is about to retire at the close of the current session; Professor Fehling of Halle has been elected Professor of Gynæcology in succession to Dr. Freund.—*Tours:* Dr. Delageniere has been appointed Professor of Clinical Surgery and Dr. L. Thomas Professor of Surgical Pathology and Operative Medicine.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Fellows of the College held on Dec. 17th Sir William Thomson was unanimously elected a Member of the Council.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—At the meeting of the Cardiff Town Council held on Dec. 10th the recommendation of the sub-committee that five acres of land in Cathay's Park should be granted for the purposes of erecting new buildings for the University College of South Wales and Monmouthshire was agreed to.

BRISTOL NATURALISTS' SOCIETY.—At a meeting of this society held at University College, Bristol, on Dec. 8th Mr. W. T. Crank read a paper on The Discovery of a Pre-historic Burial-place at Harlyn Bay, Padstow, Cornwall. Mr. Crank stated that the burial-place, which was accidentally discovered last August, was considered by experts to date from B.C. 500, and he added that Dr. John Beddoe had measured the skulls and bones which had been found and was preparing a report upon them.

HOUSING THE POOR AT SALFORD.—After repeated and much-delayed discussion on the question, the Salford Board has resolved to erect cottage homes at Kenyon Junction, near Culcheth, to accommodate 300 persons, at an outlay of £61,211.

WATER-SUPPLY OF TENBY.—At the meeting of the Tenby Town Council held on Dec. 14th the report of the Water Committee recommending the adoption of a scheme for the filtration of the Ritec water was adopted. The estimated cost was £13,500.

BRIXHAM HOSPITAL, DEVON.—At the annual meeting of the supporters of this institution held on Dec. 12th it was reported that during the past year 70 in-patients had been admitted and 885 patients had been attended at their homes (necessitating 10,972 visits). The expenditure was £573, being £13 in excess of the income. Through the generosity of two ladies a new surgery and waiting-room had been added to the hospital.

IN MEMORIAM.—The widow of Mr. Henry Lee, F.R.C.S. Eng., senior consulting surgeon to St. George's Hospital, London, has presented a marble bust of her late husband to the Royal College of Surgeons of England. He was Professor of Surgery and Pathology at the College.—A beautiful bronze relief portrait panel in memory of the late Samuel Gourley, M.D. Glasg., F.R.C.S. Edin., J.P., has recently been put upon one of the walls of the Hartlepools Hospital, where he was for 25 years honorary surgeon.

NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION AND OTHER FORMS OF TUBERCULOSIS.—A meeting in connexion with the Gloucestershire, Somerset and Wilts branch of this society was held at Chippenham on Dec. 7th under the presidency of Sir John Dickson-Poynder, M.P. An interesting address on the "Nature and Prevention of Consumption" was given by Dr. Lionel A. Weatherly. An appeal is being made for funds for the proposed sanatorium, which is estimated to cost £16,000. Several donations have been announced by the honorary secretary, Mr. A. Murray Gray, L.R.C.P. Edin.

BIRMINGHAM CONSULTATIVE MEDICAL AND SURGICAL INSTITUTION: THE CASE OF DR. HENRY WARD IRVINE.—At a meeting of the representative committee of consultants and specialists held at Birmingham on Dec. 3rd the following resolution was adopted:—

That this meeting of the representative committee of consultants and specialists of the City of Birmingham desires to congratulate the Medical Defence Union and its able and energetic secretary, Dr. A. G. Bateman, upon the successful result of the prosecution of Dr. Ward Irvine before the General Medical Council, and returns very sincere thanks for the assistance afforded to the medical profession in Birmingham.

FREEMASONRY.—*The Rahere Lodge, No. 2546.*—A meeting of the Rahere Lodge was held at Frascati's Restaurant, Oxford-street, W., on Tuesday, Dec. 11th, W. Bro. Walter Gripper, M.B. Cantab., the W.M., being in the chair. Bro. R. H. Wellington was admitted to the second degree and Mr. Alfred Hepburn, M.R.C.S. Eng., L.S.A., Mr. Arthur Maitland Ware, M.A., M.B., B.C. Cantab., and Mr. Thomas Jessopp Bokenham, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., were initiated into Freemasonry. W. Bro. D'Arcy Sugden, M.R.C.S. Eng., L.R.C.P. Lond., P.M., the Tyrian Lodge, Queensland, was also elected as a joining member. The brethren and a considerable number of guests, who included the W.M. and S.W. of the Sancta Maria Lodge, subsequently dined together.

CARDIFF INFIRMARY.—At a meeting of the executive committee of the Cardiff Infirmary held on Dec. 12th it was stated that the adverse balance of the institution at present amounted to £11,686. £4737 had been received in response to the effort which was made to clear the infirmary from debt; this sum included a conditional promise of £500.—At a special meeting of the governors of the Cardiff Infirmary held on Dec. 14th the new rule which provided that workmen, members of any trade society, club, &c., or the members of any church association, subscribing to the funds of the infirmary shall be entitled to nominate one person out of the members so subscribing as a president, vice-president, or governor, annually or for life, in the same way as ordinary subscribers, was unanimously passed. This new rule has given great satisfaction to the working classes of Cardiff and one of their representatives stated that had working men been recognised

in the past their subscriptions to the infirmary would have been doubled.

ARSENIC IN BEER.—The commission of experts appointed by the Manchester Brewers' Central Association have issued their report, in which they confirm what has already been stated—viz., that the arsenic found in deleterious quantities in the beer has been solely due to the contamination by arsenic of the sugars supplied by a Liverpool firm. The arsenic, they add, was undoubtedly derived from the impure sulphuric acid used in the manufacture of these sugars. We may remark that it has since been stated by the analyst of the city of Manchester that he has found arsenic also in similar quantity in malt and in beer known to be brewed from malt and hops only. In another column we report the presence of arsenic in remarkable quantity in superphosphate of lime which is used largely for fertilising purposes. Possibly this may throw some light on the discovery of the analyst of the city of Manchester.

Parliamentary Intelligence.

HOUSE OF LORDS.

FRIDAY, DEC. 14TH.

Sick and Wounded Colonial Soldiers.

LORD BURGHCLERE addressed a question to the Under Secretary of State for War with reference to the medical inspection and treatment of sick and wounded colonial soldiers sent home from South Africa.—Lord RAGLAN explained that wherever it was possible these men were sent direct from South Africa to their colonial homes, but in some cases they had been brought to this country, where at Shornclife a depôt for them had been formed. He had visited this depôt. A large number of the men were convalescent and were considered well enough to undertake the long voyage to this country and the greater part of them arrived, he was glad to say, in a state of advanced convalescence. In certain cases the men were not medically examined before they went on board the ship. That was an unfortunate circumstance which the War Office very much regretted and in future arrangements would be made to remedy the mistake. He assured the House that the men were provided with superior third-class accommodation, two only being in a cabin, and that they had a suitable dietary.—Earl CARRINGTON, who had intended to propose a motion on the subject, refrained from doing so, and expressed satisfaction with the manner in which his representations had been received by the War Office.

HOUSE OF COMMONS.

THURSDAY, DEC. 13TH.

Lead Poisoning in the Potteries.

Sir CHARLES DILKE asked the Home Secretary if he could state when the Home Office proposals with regard to lead poisoning in the manufacture of china and earthenware which were contained in a circular to manufacturers issued on Dec. 14th, 1899, and again submitted to them as proposed special rules in August, 1900, were to be formally issued as special rules.—Mr. RITCHIE replied: Much progress has been made towards a settlement of the special rules for the china and earthenware trade, but there are certain points still outstanding and one of them involves a chemical question on which I am now waiting for a report from Dr. Thorpe, principal chemist to the Government. I hope to be able formally to issue the new rules early next year.

The Case of Dr. H. P. Veale.

General LAURIE asked the Secretary of State for War, whether Dr. H. P. Veale, M.B. Cambridge, and the Rev. J. Godfrey, stated to be a clergyman of the Church of England at Pretoria, whose conduct in regard to the treatment of the British prisoners at Pretoria was reported on by Field-Marshal Lord Roberts in his despatch of June 27th last, were respectively British subjects; and, if so, whether their position in the Transvaal was consistent with their nationality; and if any notice could be taken of their behaviour.—Mr. BRODRICK: We are not aware whether Dr. Veale and the Rev. J. Godfrey were British subjects at the time when they were concerned with the treatment of the British prisoners at Pretoria. I am advised that Mr. Godfrey is in colonial orders and that we can take no notice of his behaviour. The question of Dr. Veale's position as a member of the Red Cross Society is under consideration.

Poison in Beer.

Colonel KENYON-SLANEY asked the Home Secretary whether the official analysts to the department, Dr. Stevenson and Dr. Luff, who were members of the expert committee appointed by the Manchester Brewers' Association, were acting on behalf of the department, or were being remunerated by the Brewers' Association; and if the latter was the case, whether, in view of the great public interests involved, he would consider the advisability of causing a report to be made by some expert analysts entirely unconnected with the trades concerned.—Mr. RITCHIE replied: Dr. Stevenson and Dr. Luff are not acting on behalf of the Home Department. I think that the suggestion in the last paragraph of the question is scarcely within my jurisdiction; but I have consulted the President of the Local Government Board and understand that that department has the whole matter under their active consideration.—Mr. FREDERICK WILSON asked the Secretary to the Treasury whether, seeing that it was stated in the report of the Committee on Beer Materials, 1899, that the Treasury was empowered to prohibit the use in the manufacture of beer of any substance or liquor of a noxious or detrimental nature, he would state upon how many occasions within the last five years had the Treasury exercised such power, and how many specimens of cheap sulphuric acid such as was apparently used in the manufacture of sugar for brewing purposes had been examined during the current year.—Mr. AUSTEN CHAMBERLAIN replied: The power referred to was conferred on the Treasury by Section 5 of the Customs and Inland Revenue Act, 1888, but the duty of providing proper securities for the wholesomeness of beer, like other articles of food, is placed by law on the local authorities, subject if necessary to the Local Government Board or Board of Agriculture. The Treasury therefore has not exercised this power. Sulphuric acid would only come under the cognisance of the Government laboratory in the event of samples being submitted for analysis under a magistrate's order, and no instances of such submission have occurred. It ought not to exist in any sugar found in a brewery.

Preservatives and Colouring Matters in Food.

Mr. CHANNING asked the President of the Local Government Board if he could state when the departmental committee appointed to consider the use of preservatives and colouring matter in articles of food was likely to present its report.—Mr. WALTER LONG replied: I am informed that it is not expected that the report will be ready till March next. The committee have deemed it desirable to institute inquiries as to dairies in Denmark and Ireland and they are deferring their report until they have before them the result of these inquiries and of certain physiological experiments which they have directed to be made.

The Constituents of Butter.

Sir MARK STEWART asked the President of the Board of Agriculture if it was the intention of the Government next session to appoint a departmental committee to inquire and report as to what regulations, if any, might with advantage be made by the Board of Agriculture under Section 4 of the Sale of Food and Drugs Act, 1899, for determining what deficiency in any of the usual constituents of genuine butter or what addition of extraneous matter should, for the purposes of the Sale of Food and Drugs Acts, 1875 to 1899, raise a presumption until the contrary was proved that the butter was not genuine.—Mr. HANBURY replied: I will not lose sight of the matter to which my hon. friend refers, but neither my predecessor nor I have yet taken any steps with respect to the setting up of presumptive standards for butter, because it has been thought better to wait and see whether any action can in the first place be taken in the case of milk and cream. The report of the committee appointed to consider the course to be taken with regard to the last-named articles has not yet been received.

FRIDAY, DEC. 14TH.

Inoculation against Enteric Fever.

Mr. POWELL WILLIAMS, in reply to a request for information as to the results of inoculation against enteric fever in South Africa, said that statistics are not yet available.

Typhus Fever in the West Highlands.

Mr. JOHN DEWAR asked the Lord Advocate whether the Local Government Board for Scotland was aware of an epidemic of typhus fever involving 20 cases (of which six were fatal) between Oct. 1st, 1899, and Feb. 12th, 1900, in the locality between Finsbay and Scadabay in the parish of Harris, in Inverness-shire, having a congested crofter and cottar population of about 1000; and whether the Local Government Board, the county medical officer, and the district medical officer of health failed to visit the locality or to take any steps to check or to assist in checking that epidemic; and whether a public inquiry would be made into the circumstances attending that outbreak.—The LORD ADVOCATE replied: The figures given by the hon. Member are, I believe, correct, but the Local Government Board had no special intimation of the outbreak, the existence of which they learned from the regular reports of the medical and sanitary officers. The county medical officer did not visit the locality between the dates specified, but he was in constant communication with the district medical officer who did, and who reported as follows: "The local authority acted very promptly and gave every assistance." On the whole I am satisfied that no more could have been done in the absence of an isolation hospital and I do not see any reason for ordering a public inquiry.

Poison in Beer.

Mr. WARNER asked the President of the Local Government Board if he intended to take some further action to stop the sale of poisonous beer, as fresh cases of poisoning were still being reported.—Mr. WALTER LONG replied: The Local Government Board have no power to stop the sale of any particular beer, but I may state that there is reason for believing that the cases of illness which are now coming under observation for the first time are in the main those of persons who received the poison some time since.—Mr. CHAPLIN asked the President of the Local Government Board if he could state what steps had been taken to ascertain the facts with regard to the alleged poisoning by beer, into which an inquiry had been instituted by the Local Government Board; if he had yet received any information as to the number of persons who had been affected and the number of deaths which were alleged to have been caused by it; and, if not, whether he would make public the information obtained by the Local Government Board as early as might be after he received it.—Mr. LONG replied: As this matter has excited considerable public interest perhaps I may be allowed to state somewhat fully the course which has been adopted with respect to it. As regards the steps which have been taken by the Local Government Board I would repeat what was stated by my right hon. friend the First Lord of the Treasury on Tuesday last—viz., that from the first outbreak of the epidemic the Board have had the matter under observation. Dr. G. S. Buchanan, one of the most experienced of their medical inspectors, is visiting the places affected and has been instructed to obtain all possible information on the subject, including the action taken by those interested in the breweries and manufactories of brewers' sugar concerned and by the local authorities for detecting arsenic in beer or other substances which contain chemically manufactured sugar. Moreover, an expert committee, consisting of Sir Lauder Brunton and Dr. Stevenson and Dr. Luff, (the analysts to the Home Office), Mr. Gordon Salamon, Dr. Buckley, and the hon. gentlemen the member for the Launceston Division (Mr. Fletcher-Moulton) have made a careful investigation on behalf of the Manchester Brewers' Central Association. The brewers and manufacturers have given them every possible access to their premises and facilitated in every way their inspection and investigation. The Board's inspector has been in communication with members of the committee and cordial coöperation and assistance have been rendered both to the

committee and the inspector by the medical officers of health of Manchester and Salford. The House may rest assured that everything practicable is being done to ascertain the facts. I am informed that the association has pledged itself to recall or to destroy all beer in the brewing of which the implicated substances have been used, and that instructions to this effect have been sent to all the brewers of the association. The obtaining of information as to the number of persons who have been affected and the number of deaths alleged to have been caused forms part of Dr. Buchanan's inquiry which is not yet complete. His report will be made public as early as practicable after its receipt. I may add that the Board have issued a circular to local authorities recommending them to cause samples to be analysed both of beer and of articles of food in which chemically manufactured sugars may enter.

Proposed Exemption of Hospitals from Rates.

MR. HORNER asked the First Lord of the Treasury whether, in view of the circumstances under which hospitals and institutions of a like kind had to raise funds necessary to carry on their charitable work, it was the intention of Her Majesty's Government to initiate legislation to give effect to the report of the Select Committee of the House of Commons, dated July 13th, 1900, by which it was recommended that the principle of exemption from rates should be applied to hospitals and kindred institutions not carried on for profit or gain and supported wholly or in part by voluntary contributions or endowments; and whether Her Majesty's Government proposed in any way to give effect to the other recommendations of that report.—MR. WALTER LONG replied to the question, saying: The matter to which the hon. Member refers is one of considerable difficulty and forms part of the subject now under consideration by the Royal Commission on Local Taxation. I cannot at present give any promise of its being dealt with by the Government.

SATURDAY, DEC. 15TH.

Close of the Session,

The business of the session was brought to a close to-day, and Parliament was prorogued by commissioners representing Her Majesty. Unless something unexpected happens the new session will not commence before Feb. 14th, 1901.

BOOKS, ETC., RECEIVED.

BAILLIÈRE, TINDALL, AND COX, King William-street, Strand, London.
Medical Monograph Series, No. 4: The Syphilis of Children in Everyday Practice. By G. Carpenter, M.D. Lond. Edited by David Walsh, M.D. 1901. Price 3s. 6d. net.
How to Avoid Tubercle. By Tucker Wise, M.D. Third edition. 1900. Price 1s.
The History of Ancient Gynæcology. By W. J. S. McKay, M.B., M.Ch. B.Sc. 1901. Price 7s. 6d. net.
Uterine Tumours: their Pathology and Treatment. By W. R. Williams, F.R.C.S. 1901. Price 10s. 6d. net.

BALE, J., SONS, AND DANIELSSON, Great Titchfield-street, London.
Outlines for Dissectors. Part I.: Upper Extremity, Right and Left. Part II.: Lower Extremity, Right and Left. 1900. Price 1s. 6d. each, net.
The British Sanatoria Annual. Illustrated. Reprint. 1901. Price 2s. 9d.

BENGAL SECRETARIAT PRESS, Calcutta.
A Manual of Jail Hygiene. Adopted officially in all Prisons of Bengal, Bombay, Punjab, Assam, and Central Provinces of India, for the use of Medical Subordinates. By Major W. J. Buchanan, B.A., M.B., Indian Medical Service. Second edition. 1900. Price 4s.

BLACK, A. & C., London.
The Englishwoman's Year-book and Directory, 1901. Third year of new series. Edited by Emily Janes. 1901. Price 2s. 6d. net.

BRADLEY AND SON, Reading.
Reading Pathological Society, incorporated with the Reading Medical and Chirurgical Society: Report of the Fifty-ninth Session, 1899-1900.

BURROUGHS, WELLCOME, AND CO., Snow Hill-buildings, London.
Wellcome's Photographic Exposure Record and Diary, 1901.

CARRÉ, GEORGES, ET C. NAUD, Paris.
Leçons de Physiologie Expérimentale. Par R. Dubois et E. Couvreur. 1900.

CHURCHILL, J. & A., Great Marlborough-street, London.
Year-book of Pharmacy, 1900, and Transactions of the British Pharmaceutical Conference, July, 1900.
Descriptive Catalogue of the Museum of the Sixth International Otological Congress held in London, August, 1899. Compiled and edited by W. Jobson Horne and A. H. Cheatle. Revised edition. 1900. Price 10s. net.

GREEN, WILLIAM, AND SONS, Edinburgh.
Encyclopædia Medica. Under the general Editorship of Chalmers Watson, M.B., M.R.C.P. Edin. Vols. v. and vi. 1900.

KIMPTON, H., Furnival-street, Holborn, London.
A Treatise on Diseases of the Nose and Throat. By Ernest L. Shurly, M.D. Illustrated. 1900.

KNOWLEDGE OFFICE, 326, High Holborn, London.
Knowledge Diary and Scientific Handbook for 1901. 1900. Price 3s.

LEWIS, H. K., Gower-street, London.
What to do in Cases of Poisoning. By William Murrell, M.D., F.R.C.P. Ninth edition. 1900. Price 1s.
Transactions of the Dermatological Society of Great Britain and Ireland. Edited by W. T. Freeman, M.D., F.R.C.S., and C. H. Thompson, M.D. 1899-1900. Vol. vi. Price 5s.

LONGMANS, GREEN AND CO., Paternoster-row, London.
The Great Famine and its Causes. By Vaughan Nash. Illustrated, with a Map. 1900. Price 6s.
Transactions of the Clinical Society of London. Vol. xxxiii. 1900.

NAGELE, E., Stuttgart.
Klinische und experimentelle Beiträge zur Lehre von der Bauchfelltuberkulose. Von O. Borchgrevink. 1901.

NEWNES, GEORGE, AND CO., Southampton-street, Strand, London.
The Story of Thought and Feeling. By Fred. Ryland, M.A. 1900. Price 1s.

PENTLAND, Y. J., Edinburgh.
The Edinburgh Medical Journal. Edited by G. A. Gibson, M.D., F.R.C.P. Edin. New series, vol. viii. 1900.

SAMPSON LOW, MARSTON, AND CO., Fetter-lane, Fleet-street, London.
The Guide to South Africa. With coloured maps. Edited annually by A. S. Brown and G. G. Brown for the Union Castle Mail Steamship Company. London, 1900-1901. Price 2s. 6d.
Mosquitoes and Malaria. By C. Christy, M.B., C.M. Edin. With Plates. 1900. Price 6s. net.

SAUNDERS, W. B., AND CO., Philadelphia.
A Text-book of the Diseases of Women. By H. J. Garrigues, A.M., M.D. Third edition. Illustrated. 1900. Price 18s. net.
Clinical Examination of the Urine and Urinary Diagnosis. By J. B. Ogden, M.D. Illustrated. 1900. Price 12s. 6d. net.
A Text-book of Embryology. By J. C. Heisler, M.D. Illustrated. 1899. Price 10s. 6d. net.

SMITH, ELDER, AND CO., Waterloo-place, London.
On Some Cirrhoses of the Liver. Being the Lumleian Lectures for 1900. By W. B. Cheadle, M.A., M.D. Cantab. Illustrated. 1900. Price 5s.

SPOTTISWOODE AND CO., Gracechurch-street, London.
Indian and Colonial Addendum to the British Pharmacopœia, 1898. 1900.

TREAT, E. B., AND CO., New York.
Sexual Debility in Man. By F. R. Sturgis, M.D. 1900. Price 12s. 6d.

VIR PUBLISHING COMPANY, Imperial Arcade, Ludgate-circus, London.
Purity and Truth. Self and Sex Series: What a Young Man Ought to Know. By S. Stall, D.D. 1900. Price 4s.

A Prescriber's Companion, by Thomas D. Savill, M.D. Lond., D.P.H. Camb.; third edition, 1900 (J. Bale, Sons, and Danielsson, Great Titchfield-street, London), price 1s. post free.—1901. Bale's Dental Surgeons' Daily Diary and Appointment Book (J. Bale, Sons, and Danielsson, London); prices 7s. and 8s. 6d.—Saunders' Pocket Medical Formulary, with an Appendix, by W. M. Powell, M.D., sixth edition (H. Kimpton, High Holborn, London), price 7s. 6d. net.—Received from Messrs. Bemrose and Sons, 23, Old Bailey, London, Five Calendars for 1901, published at 1s. each.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.

ARBUCKLE, H. W., M.D. Aberd., D.P.H. Camb., has been re-appointed Medical Officer of Health by the Thorne District Council.
BARCLAY, W. J., M.B., B.S. Edin., has been appointed Assistant Medical Officer for the Dundee Infirmary.
BODMAN, C. OSMOND, M.B., B.Sc. Durh., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer to the Royal Hospital for Children and Women, Waterloo-bridge-road, London.
BROGDEN, G. A., M.B., Ch.B. Edin., has been appointed House-Physician to the Salisbury Infirmary.
BULLKID, ARTHUR, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health for Midsomer Norton, Somerset, vice Alexander Hastings Whicher, resigned.
CLARK, MR., of Truro, has been appointed Public Analyst by the Truro Corporation.
CLAY, D. L., L.R.C.P. Lond., M.R.C.S., has been appointed Surgeon to the Royal mail steamer *Gothic*.
CRAWFORD, A. D., M.B., C.M. Glasg., has been re-appointed Medical Officer for the Marstoke Sanitary District, Meriden Union.
DARLEY, A. R., M.D. Dubl., L.M. R.C.P. Irel., has been re-appointed Medical Officer by the Daventry Rural District Council.
DIXON, J., M.D. St. And., L.R.C.P. Lond., M.R.C.S., has been appointed, *pro tem.*, Medical Officer for Rotherhithe.
EDRIDGE-GREEN, F. W., M.D., F.R.C.S., has been appointed Honorary Secretary for England of the International Psychical Institute.
FLACK, FREDERICK HENRY, M.B., Ch.B. Vict. Univ., has been appointed Junior House Surgeon to the Blackburn and East Lancashire Infirmary.
GOSTLING, E. VICTOR, M.R.C.S., L.R.C.P., has been appointed House Physician to the Derbyshire Royal Infirmary.
HARRISON, EDWARD, M.A., M.D. Cantab., F.R.C.S. Eng., has been appointed Honorary Surgeon to the Hull Royal Infirmary.
KILVERT, J. ELLIS, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Derbyshire Royal Infirmary.
MACKENZIE, W. L., M.D. Aberd., D.P.H., has been appointed Medical Inspector to the Local Government Board for Scotland.

MCLAWS, J., M.B., M.Ch. Glasg., has been appointed Civil Surgeon to the Forces in South Africa.

MANLEY, J. H. H., M.B., B.C., M.R.C.S., D.P.H., has been re-appointed Medical Officer by the West Bromwich Town Council.

MONTGOMERY, W. P., M.A. Oxon., M.B., B.S. Lond., F.R.C.S., has been appointed Assistant Surgeon to the Manchester Children's Hospital, Pendlebury.

NEWMAN, G., M.D. Edin., D.P.H. Camb., has been appointed Medical Officer of Health by the Finsbury Borough Council.

PARK, W., M.B., M.S. Glasg., has been appointed Civil Surgeon to the Forces in South Africa.

POZZI, JOSEPH, M.B., Ch.B. Aberd., has been appointed Deputy Medical Officer for the Nelson and Brierfield Sanitary District of the Burnley Union.

REIDY, W. A., L.R.C.P., L.R.C.S., L.F.P.S. Glasg., has been appointed District Medical Officer and Public Vaccinator by the Newport, Mon., Board of Guardians.

RICE, GEORGE, M.D. Durh., has been appointed Honorary Physician to the Derbyshire Royal Infirmary, vice C. A. Greaves, resigned.

SHAW, JOHN C., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Royal Ear Hospital, Frith-street, Soho-square, London.

SHERA, J. E. P., L.R.C.P., L.R.C.S. Irel., has been appointed Second Assistant Medical Officer to the Kent County Asylum, Chartham, near Canterbury.

SOUTHERN, J. ACTON, M.R.C.S., L.R.C.P., has been appointed Honorary Surgeon to the Derbyshire Royal Infirmary, vice W. Grafton Curgenven, resigned.

TENNENT, J. T., M.B., C.M. Glasg., has been appointed Civil Surgeon to the Forces in South Africa.

THOMAS, J. LYNN, F.R.C.S. Eng., has been appointed Surgeon to the Cardiff Infirmary.

WARRINGTON, W. B., M.D. Lond., M.R.C.P., has been appointed Honorary Assistant Physician to the Stanley Hospital, Liverpool.

WILLIAMS, W. R. E., M.B., Ch.B. Edin., has been appointed Civil Surgeon to the Forces in South Africa.

WORKMAN, C., M.D., M.Ch. Irel., F.F.P.S. Glasg., has been appointed Lecturer Examiner in Pathology, University of Glasgow.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ANCOATS HOSPITAL, Manchester.—Resident House Physician for in-patients. Salary £80, with board, &c.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Three House Surgeons, one for each Branch. Salary £160 per annum, with furnished apartments, coals, gas, washing, and attendance. Apply to Assistant Secretary, 113, Queen's-road, Brighton.

BURGH OF LEITH.—Medical Officer of Health. Salary £400 a year. Apply to the Town Clerk, Town Clerk's Office, Leith.

BURGH OF PARTICK.—Medical Officer. Salary proposed £150. Apply to the Clerk to Commissioners, Burgh Chambers, Partick, Glasgow.

CHELSEA, BROMPTON, AND BELGRAVE DISPENSARY, 41, Sloane-square, Chelsea.—Surgeon.

CHELTENHAM GENERAL HOSPITAL.—Junior House Surgeon for two years, unmarried. Salary £45 per annum, with board, lodging, and washing.

CHESTER GENERAL INFIRMARY.—Second Resident Medical Officer for six months. Salary at the rate of £80 per annum, with residence and maintenance in the house.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Salary at the rate of £30 per annum, with board and residence.

COUNTY ASYLUM, Whittingham, Lancashire.—Junior Assistant Medical Officer. Salary commencing at £150, increasing to £200, and on promotion to £250, furnished apartments, board, washing, and attendance provided.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Honorary Physician.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—Assistant House Surgeon. Salary £50 per annum, with board and residence.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Glamis-road, Shadwell, E.—Pathologist and Registrar for one year.

FISHERTON HOUSE ASYLUM.—Assistant Medical Officer, unmarried. Salary £150 per annum, with board, lodging, and washing.—Apply to Dr. Finch, Salisbury.

GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION, Gloucester.—Assistant House Surgeon for six months. Salary at the rate of £30 per annum, with board, residence, and washing.

GUEST HOSPITAL, Dudley.—Senior Resident Medical Officer. Salary £100 per annum, increasing by £10 a year to £120, conditionally, with board, residence, attendance, and washing.

HOSPITAL FOR WOMEN, Soho-square, London, W.—Assistant Physician. Also Assistant Surgeon.

HULL ROYAL INFIRMARY.—Honorary Assistant Surgeon to Out-patient Department for five years. Also Junior Assistant House Surgeon for one year. Salary £40, with board and lodging.

KENT COUNTY ASYLUM, Barming Heath, Maidstone.—Fourth Assistant Medical Officer and Pathologist for two years, unmarried. Salary £175 per annum, rising £5 a year, with furnished quarters, attendance, coal, gas, garden produce, and washing.

LEEDS PUBLIC DISPENSARY.—Two Junior Resident Medical Officers for one year. Salary £100, with board and lodging, and an increase of £10 on re-appointment.

LEICESTER INFIRMARY.—House Physician for 12 months. Salary £100 per annum, with board, apartments, and washing.

LIVERPOOL STANLEY HOSPITAL.—Junior House Surgeon. Salary £70, with board, residence, and washing.

MILLER HOSPITAL and ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer for six months. Salary at the rate of £60 per annum, with board, attendance, and washing.

MONKWEARMOUTH AND SOUTHWICK HOSPITAL, Sunderland.—House Surgeon, unmarried. Salary £80 per annum, with board, residence, and washing.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—Assistant House Surgeon for six months. Board, apartments, and washing provided, and at least £10 given as an honorarium.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon. Salary £140 per annum, all found except board.

RADCLIFFE INFIRMARY, Oxford.—Honorary Assistant Surgeon.

ROYAL BOSCOMBE AND WEST HANTS HOSPITAL, Bournemouth.—House Surgeon. Salary £60 per annum, with board, lodging, and washing.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner.

ROYAL FREE HOSPITAL, Gray's Inn-road, London.—Assistant Surgeon for out-patients.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge-road, London.—Assistant Surgeon.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—House Surgeon for one year, unmarried. Salary £100, with board and residence. Also Assistant House Surgeon for six months. Salary at the rate of £50 per annum, with board and residence.

SALFORD UNION.—Assistant Medical Officer, male, at the Union Infirmary, Hope, near Eccles, for one year. Salary £150, with furnished apartments and attendance (no rations) in the Infirmary. Apply to the Clerk to the Guardians, Union Offices, Eccles New-road, Salford.

SALOP INFIRMARY, Shrewsbury.—House Surgeon. Salary £100 per annum, with board, washing, and residence.

SWANSEA GENERAL AND EYE HOSPITAL.—House Physician for twelve months. Salary £75, with board, apartments, and washing.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Assistant House Surgeon for six months. Salary at the rate of £60 per annum, with board, lodging, and laundry.

THE CHIEF INSPECTOR OF FACTORIES gives notice of vacancies for Certifying Surgeons under the Factory Acts at Darwen, in the county of Lancashire; and at Exmouth, in the county of Devon.

VICTORIA CENTRAL HOSPITAL, Liscard.—Specialists for the Ear, Nose, and Throat, and a Gynæcologist.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea.—House Surgeon for six months. Honorarium £25, with board and lodging in the hospital.

WESTERN GENERAL DISPENSARY, Marylebone-road, London.—Two Honorary Surgeons.

WEST KENT GENERAL HOSPITAL, Maidstone.—House Surgeon, unmarried. Salary 100 guineas, rising 10 per annum to 120 guineas, with board and residence. Also Assistant House Surgeon for six months. Honorarium at the rate of £50 per annum, with board and residence.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Assistant House Surgeon for six months. Honorarium at the rate of £75 per annum will be given. Board, lodging, and washing provided.

WORKSOP DISPENSARY AND VICTORIA HOSPITAL, Worksop.—House Surgeon and Dispenser. Salary £150 per annum, with rooms and attendance.

Births, Marriages, and Deaths.

BIRTHS.

HOLDEN.—On Dec. 13th, at Castle Hill, Reading, the wife of George Herbert Rose Holden, M.A., M.D. Cantab., of a son.

MACKINTOSH.—On Dec. 14th, at Lilybank, Bishopbriggs, the wife of Hugh J. Mackintosh, M.B., C.M., of a son.

TAIT.—On Dec. 15th, at Highbury Park, the wife of Edward Sabine Tait, M.D., of a daughter.

MARRIAGES.

BENNETT—TANGYE.—On the 18th Dec., at Carr's-lane Chapel, Birmingham, by the Rev. J. H. Jowett, W. H. Bennett, F.R.C.S., of 22, Broad-street, Birmingham, son of Wm. Bennett, Hertford-place, Coventry, to Mary Ethel Tangye, only daughter of George Tangye, J.P., of Heathfield Hall, Handsworth, Birmingham.

GURNEY—WILLIAMS.—On Dec. 15th, at St. John's, Notting-hill, Alexander C. Gurney, M.B., of Gildredge-road, Eastbourne, to Minnie Hallyburton, third daughter of the late Major-General H. E. T. Williams, 108th Regiment, of Ladbroke-gardens, W.

HARSTON—HARSTON.—On Dec. 12th, at the Cathedral, Hong-Kong, George Montagu Harston, M.R.C.S., L.R.C.P. Lond., second son of George A. Harston, of Wentworth House, Harrogate, to Mabel Elsie, daughter of E. F. B. Harston, of Trebovir-road, South Kensington, London.

LINNGTON—SIMS.—On 15th inst., at All Saints, Norfolk-square, W., by the Rev. William Boyd, M.A., William West Linington, F.R.C.S. Eng., of Folkestone, son of Rev. W. A. Linington, Nightingale-lane, S.W., to Nina Sims, the eldest daughter of Charles Sims, Esq., L.D.S. Eng., of Edgbaston.

DEATHS.

DUNLOP.—Near Lagos, West Africa, Charles Seymour Strickland Dunlop, L.R.C.P., M.R.C.S., Assistant Medical Officer Government Railways, eldest son of Andrew Dunlop, M.D., Jersey, aged 27 years.

LAVER.—On Dec. 14th, at Rutland Park, Sheffield, Arthur Henry Laver, M.D., aged 50 years.

MORISON.—On Dec. 14th, suddenly, at Edinburgh, Donald Morison, M.D., English Presbyterian Mission, Bengal.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

"THE MEDICAL PROVIDENT LEAGUE."

To the Editors of THE LANCET.

SIRS,—The question now before the General Medical Council respecting the propriety of medical men employing canvassers and touts in connexion with private clubs cannot fail to expose a number of specific cases which have too long been allowed to remain uninvestigated. And if it is seen that the Council entertains more than a mere "pious opinion" upon this question of ethics the profession at large, I am sure, will be much benefited. It is in the methods of *private* clubs that abuse is most apt to occur and procedure most likely to become unprofessional. If the association of a medical man with a friendly society employing collectors and canvassers is objected to, what can be said of a medical man who himself employs 30 or 40 collectors, many of whom, be it remembered, are agents for other associations as well, whose remuneration is in direct proportion to their success in procuring new members and to the amount of money collected? What can be said of the man who promises his agents the appropriation of the weekly subscriptions for the first two months after joining and 25 per cent. of all moneys collected subsequently?

There is yet another aspect of this sort of practice allowing of the introduction of a system of "sweating" and affecting that most unfortunate section of the profession—the moneyless "qualified assistant"—which may be discussed in this connexion. In our larger towns the penny-a-member private medical clubs worked upon the system alluded to soon become so extensive as to be altogether beyond the capacity of a single practitioner to attend to. Several needy assistants are engaged and each has a separate district assigned to his management. Thus the principal is altogether relieved of the unpleasant work so frequently associated with club practices, while he is left to reap all the pecuniary benefits. Of course, assistants are paid a salary, but it will be generally found that such arrangements are made that the fees received from any private practice, which the assistant is encouraged to work up, are amply sufficient to pay all the expenses incurred and leave even a substantial surplus for the pocket of the "club doctor."

I am, Sirs, yours faithfully,

Hull, Nov. 11th, 1900. COMPTE RENDU.

A WALKING MACHINE FOR PARALYTIC OR OTHERWISE DISABLED PERSONS.

WE have received from Mr. George Thomson, 40, Weaver-street, Glasgow, an illustrated description of an apparatus which he has patented under the name of a walking machine for paralytic or otherwise disabled persons. The action of it may obviously be compared to that of a pair of crutches which are slid along the ground progressively and not lifted in the ordinary way alternately with each step that the user takes. The machine consists of a frame, preferably rectangular, composed of four standards or legs connected together by stays at top and bottom on three sides, leaving the fourth space open for the user to enter within it, and fitted with adjustments for varying its height and width. The lower end of each of the four standards or legs carries a rubber-tyred castor. A crutch to support the user is adjustably fitted on the top stay on each side of the machine, and it is so mounted that its position is capable of variation within wide limits. As the frame stands upright on four castors it evidently has considerable stability, and infirm or helpless persons would probably find it useful on many occasions for moving about. It is, in fact, somewhat analogous to the old-fashioned children's "go-cart."

"HAVE MATERNAL IMPRESSIONS ANY EFFECT ON THE FŒTUS IN UTERO?"

To the Editors of THE LANCET.

SIRS,—In reply to Mr. Stuart-Menteath's letter in THE LANCET of Dec. 15th the following facts may interest him. Some 15 years ago I was an ardent fancier and breeder of pigeons and visited the pens of a well-known north-country fancier to see his stock. He was not a scientific man and the word "atavism" would have driven him to his dictionary. His pens consisted of the usual house opening on one side into a large wire-netting inclosure, the whole structure being divided into five or six compartments, each containing a section of the house and of the inclosure. He complained to me that for some reason—to him unknown—all his birds in the end pen threw young deficient in colour and with a tendency, though he did not express it in these terms, to albinism. The free side of this pen looked on to a lawn, and on inquiry I learnt that this lawn was used almost exclusively for drying the household linen, and that for most days in the week the grass was covered with sheets, &c., put out to bleach in the sun. He also told me that he found when penning pouters in the next compartment to either Turbits or Jacobins, I forget which, the latter birds threw young quite useless for show as they had pouter markings, and he asked me if the proximity of the pouters could possibly be the cause; he did not think it could be so. As my friend was a successful exhibitor in the pigeon shows, having on one occasion at least taken the Crystal Palace Cup (the Columbarian blue riband), and a frequent judge at shows, his management of his own stock of birds entirely precludes any possibility of tainted blood in his breeding pens. That belief in the effect of maternal impressions is of ancient date is apparent from the Biblical account (Gen. xxx.) of how Jacob by means of a trick despoiled his father-in-law of the best of his flocks and herds, though, of course, this is not evidence as to the correctness of the belief.

I am, Sirs, yours faithfully,

NORMAN DAVIS, M.D. Durh.

Buntingford, Herts, Dec. 14th, 1900.

"A SUGGESTION FOR THE UNIVERSITIES OF OXFORD AND CAMBRIDGE."

To the Editors of THE LANCET.

SIRS,—The assurance of your correspondent with the lengthy *nom de plume*—if he could even for one moment be taken seriously—is simply astounding. By his proposal he would at once reduce Oxford and Cambridge to the level of examining boards and if this should be done in the matter of medical degrees why should it stop there? Why not in other faculties? Why should not laboratories, schools, colleges, residence, the social life and intercourse, and all that goes to make up the charm of *real* university life and to enhance the value of an Oxford or Cambridge degree, be done away with? And where would be the justice in his proposal to *bond fide* graduates—men who have given their time and means and many their life-work to their Alma Mater and who have learnt to love and reverence her with all her hoard of cherished and time-worn traditions? Does he suppose that these men would welcome—would ever permit a host of strangers—outsiders, too often with little better education and little more social standing than a Board-school education imparts, to claim a degree simply because they came begging for it with sufficient professional education to pass the final and with the necessary fees in their hands? No grace would ever be vetoed in the senate with more unanimity. The *sang froid* with which your correspondent parades his proposal almost induces me to think that he has not only passed his first half century but that he is nearing the completion of his second. I would that Oxford and Cambridge would take example from Trinity College, Dublin, and enforce the taking of an arts degree before graduation in medicine, and that all three universities would take a leaf out of the book of the Royal University of Ireland and not grant their diplomas in public health to any but their own graduates.

I am, Sirs, yours faithfully,

Dec. 17th, 1900. M.A. CANTAB., M.A., M.D. DUBLIN.

*** The University of Oxford does enforce the taking of an arts degree before graduation in medicine.—ED. L.

THE BIRMINGHAM CONSULTATIVE MEDICAL AND SURGICAL INSTITUTION.

To the Editors of THE LANCET.

SIRS,—In that town where Egyptian mummies are turned out in a week to resemble the products of a thousand years and where ancient armour worn by some imaginary ancestor may be "made to measure while you wait," we must, I suppose, be flattered to think that they have given a member of our profession fully five years to become a "consultant." At college one was always taught to look upon a consultant with something approaching awe, to regard him in the light of a man who had grown old and white with years of patient toil and careful study ere he had reached that lofty pinnacle of fame and respect. But in Birmingham all this seems to have changed. "Consultants at the shortest notice!" will probably soon be the leading advertisement in the enterprising city. But the experienced—the "wise men" of the profession—what will *they* be called in this new nomenclature? Possibly they will be known in the coming century as "street doctors." After all, "what's in a name?"

I am, Sirs, yours faithfully,

WILFRED KINGDON.

London, N.W., Dec. 18th, 1900.

"ORCHITIC EXTRACT."

To the Editors of THE LANCET.

SIRS,—In answer to your inquirer "Prostate," and seeing your remarks in THE LANCET of Nov. 17th, I would like to give you my experience of the above. Two years ago a patient came to me complaining that he had lost the power of "sexual function"; he was only 35 years old, and after trying the usual tonics, &c., I gave him 10 grains of the above in tabloids three times a day and continued this for three months with the following results. He lost flesh, became very thin, had flabby muscles, and, as he expressed it, was too tired to do anything, and there was no improvement in any way from what he was suffering from. I discontinued this treatment, gave him tonics and cod-liver oil, and he became strong and well again as far as his health was concerned. I tried the extract again with the same result but in a more pronounced form; finally, I left it off and reverted to tonics, &c. He regained his general health and former condition with the exception of the one point, which still remains.

I am, Sirs, yours faithfully,

A. CHURCHWARD, M.D. Brux., &c.

THE TREATMENT OF BROMIDROSIS.

To the Editors of THE LANCET.

SIRS,—Could any of your readers inform me whether there is any treatment likely to do good in combating most offensive perspirations exuding all over the skin of a young lady, aged 28 years, of sound constitution and with no special history? The slightest exertion brings on these perspirations, more especially, of course, in the summer, and they are so bad as to be considerably interfering with the young lady's happiness and prospects in life. My patient is a good-looking woman, of charming manners, but her prospects of marriage are very poor whilst suffering from such an affliction.

I am, Sirs, yours faithfully,

Dec. 17th, 1900. G. P.

THE DANGERS OF COLONIAL APPOINTMENTS.

To the Editors of THE LANCET.

SIRS,—I notice in THE LANCET of Dec. 8th an advertisement for assistant medical officers to attend on Government staff constructing railway in West Africa. May I ask what diseases, other than those that may attack one in Britain, a man may risk out there, and in what other ways he may become incapacitated for work? The pay offered is good, but one naturally would like to know is it worth the risk? Could you inform me of the probable costs that would be incurred (1) in outfit suitable to the climate; and (2) costs incidental to living in such a country. The advertisement states that free quarters would be given. Does that mean board and lodging, or simply lodging alone? Knowing no one who can give me information about the matter, I therefore appeal to you. Apologising for troubling,

I am, Sirs, yours faithfully,

Dec. 8th, 1900. TENOTOMY.

FIRST AID WITH A VENGEANCE.

To the Editors of THE LANCET.

SIRS,—I was visiting a patient the other morning, and a lady staying in the house had, a few minutes before my arrival, fallen down stairs and badly sprained one of her ankles. I obtained some strapping and applied it to the joint, and she expressed herself gratified for my help and the support the strapping gave. On the following day I made inquiry how the ankle was and received an answer that she would not trouble me to see her, she was being treated by the "butler," who was well acquainted with massage. "First aid" this, with a vengeance.

I am, Sirs, yours faithfully,

Dec. 13th, 1900. PRACTITIONER OF 30 YEARS' STANDING.

VACCINATION FEES.

To the Editors of THE LANCET.

SIRS,—Would you kindly say if a public vaccinator is entitled to the 1*s.* birth fee for cases vaccinated by him privately, when such children are under the age of four months? *Vide* Local Government Board Orders of October 13th, 1898, Art. III., Sec. (1*a*). My guardians refuse to pay such fees. I am, Sirs, yours faithfully,

Dec. 10th, 1900. PUBLIC VACCINATOR.

*** The vaccinations in question were not performed by the public vaccinator in his official capacity of public vaccinator, and he is therefore not entitled to the birth fee, as the cases in dispute had not been entered on the vaccination officer's birth lists.—ED. L.

"THE CASE OF DR. PATRICK QUINLIVAN."

THE following additional subscriptions have been received towards the fund for the family of the late Dr. Quinlivan:—Mr. and Mrs. F. J. Hamby, £1 1*s.*; Dr. Giussani, £1; Dr. Lehane, £1 1*s.*; and Dr. Dunn, 10*s.* 6*d.*

THE "SOLIS" PIPE.

WE have received from Mr. A. Wyllie of 39, York-road, Upton-park, London, E., a patent pipe the object of which is to prevent saliva saturated with nicotine from entering the mouth and also to keep the tobacco dry. The pipe is similar in appearance to an ordinary one, but the bottom of the bowl is bored out and replaced by a plug. Through this plug passes a screw on the top of which is an absorbent plug which presses lightly on a projecting rim within the pipe just above the upper surface of the plug which closes the bottom of the bowl. The smoke and nicotine thus enter a chamber below the tobacco. The object of the screw is to regulate the draught. Although apparently complicated, this pipe is very simple in construction. It may possess all the merits which its inventor claims for it, and it looks as if it does, but the experience of smokers is that some men can manage any pipe and some men can manage none.

"TREATMENT OF CONSUMPTION BY ARSENIC."

To the Editors of THE LANCET.

SIRS,—In reference to the inquiry of "L.R.C.P. & S. I." in THE LANCET of Dec. 15th for the manufacturers of sodium kakodylate and the solutions for the Gautier treatment, we beg to inform him that we have made and supplied them for several months. If he will communicate with us we shall be pleased to answer any inquiries.

Yours faithfully,

Oxford-street, W., Dec. 18th, 1900. SQUIRE AND SONS.

MUSICAL SURGERY.

THE multitudinous comic journals that of late years have sprung up like mushrooms are not always humorous, but sometimes they do contain jokes, properly so-called, and not merely verbal inanities. The following really humorous little jest is taken from a recent issue of *Tit-Bits*:—

Landlady: "Beg pardon, sir, but did I understand as you were a doctor of music?"

Musician: "I am, ma'am; why?"

Landlady: "Well, sir, my Billy 'ave just been and broke 'is concertina, and I thought as 'ow I shud be glad to put a hodd job in yer way."

There is, of course, nothing new under the sun, and this may be an arrant "chestnut," but we do not remember having met with it before.

"ARSENIC IN WHISKY?"

MESSRS. MACKIE AND CO., distillers, of 217, West George-street, Glasgow, point out in reference to the annotation under the above heading in our columns last week that no glucose or substitutes are employed in the manufacture of Scotch whisky whatever. Further, in their distilleries they state that they are licensed to distil from malt only, and as two excise officers are resident at each distillery all the year evasion of the law is impossible even if desired. We may observe that our remarks were not directed to Scotch whisky in particular but to whisky in general. We are glad to learn of the course which Messrs. Mackie and Co. state that they adopt, but they cannot deny surely that much of the ordinary whisky sold is a blend of malt and corn spirit. It was from this fact that suspicion fell upon whisky as possibly containing arsenic, a suspicion which, according to our experiment, is unfounded.

FIRST AID ON RAILWAYS.

THE directors of the London and South-Western Railway Company have recently decided to offer, annually, a valuable Challenge Shield and silver medals for competition between the teams chosen from the ambulance classes, which have been organised at many of the principal stations throughout the railway in the past two years. The intention of the directors is to induce their employés to join the ambulance classes. It may be stated that since Jan. 1st, 1899, 695 members have obtained the St. John Ambulance Association certificates of efficiency in first aid. The directors liberally bear the entire outlay in the working of the classes.

THE CONDITION THREE YEARS AFTER OPERATION OF FIFTY SUCCESSFUL CONSECUTIVE OVARIOTOMIES: A CORRECTION.

To the Editors of THE LANCET.

SIRS,—In your last issue, p. 1721, first column, lines 7 and 8, the words "December, 1900," should be omitted and the sentence in which they occur should not be in parenthesis. The cases referred to were last seen by me shortly before the paper was read on Dec. 11th, 1899. The sentences in parenthesis were added when I sent the paper to you in September of this year.

I am, Sirs, yours faithfully,

Portman-street, W., Dec. 17th, 1900. JOHN D. MALCOLM.

SURGICAL PATHOLOGICAL SPECIMENS.

To the Editors of THE LANCET.

SIRS,—Please allow me through THE LANCET to ask my fellow practitioners where I can get a good complete set of surgical pathological specimens and a second-hand microscope. I am reading for a surgical examination. I am, Sirs, yours faithfully,

Dec. 10th, 1900. PATELLA.

Signor S. Bocca.—We are aware of no work dealing with the associated effects of the poisons. The suggestion of associated effects has arisen out of the epidemic of peripheral neuritis at Manchester. The subject is therefore comparatively new and doubtless will be investigated thoroughly in due course. A valued work on the subject of poisons, their effects and detection, is that by Mr. Wynter Blyth, published by Charles Griffin and Co., Exeter-street, Strand, London.

Suburban.—It is true that some members of the medical profession do not set a high value on their services, but the abuse in connexion with medical aid associations is more extensive than is implied in this admission.

A Subscriber to THE LANCET, *&c., F. R. C. S., R. C. O.*, and others are thanked for their letters. We do not accept advertisements which on their face propose to sweat medical men, and we are always pleased when our readers will help us by giving us such information.

W. H.—Our correspondent's statement is too generalised and vague. If he will forward us some specific instances of the behaviour to which he alludes we should be more able to give an opinion upon the matter.

A Nurses' Lecturer.—Our correspondent need have no fear in recommending nurses to seek the membership of the Royal British Nurses' Association.

Streatham.—The removal of tattoo marks can sometimes be effected. A surgeon might be consulted.

T. P. J. C. has not favoured us with his name and address.

Bill.—Our correspondent should consult his solicitor.

ERRATA.—In Dr. Poore's Purvis Oration on Dietetic Problems, published in THE LANCET of Dec. 15th, the words "Royal Society" (p. 1715, col. 2, line 60) should be *Royal College of Physicians of London;* "Cheadle" (p. 1715, col. 2, lines 67, 75) should be *Chepmell;* "Taylor" (p. 1716, col. 1, line 53) should be *Thiele.*

METEOROLOGICAL READINGS

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET Office, Dec. 20th, 1900.

Date	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Rainfall.	Solar Radiation Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb	Dry Bulb.	Remarks at 8.30 A.M.
Dec. 14	30·32	WSW	0·21	68	52	43	43	44	Clear
,, 15	30·15	S.W.	...	78	54	44	48	50	Cloudy
,, 16	30·37	W.	...	61	50	42	41	42	Cloudy
,, 17	30·35	WSW	...	60	48	42	45	47	Overcast
,, 18	30·03	S.W.	...	65	52	42	47	48	Overcast
,, 19	30·13	W.	0·23	61	50	40	40	40	Overcast
,, 20	29·85	WSW	0·01	56	52	40	49	50	Raining

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (24th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (25th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

WEDNESDAY (26th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.)

THURSDAY (27th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.) University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

FRIDAY (28th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

SATURDAY (29th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

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It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

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The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND

During the week marked copies of the following newspapers have been received: *Behar Herald (Bankipore), South Wales News, Hull Daily Mail, Manchester Courier, Westminster Gazette, West Morning News, Norfolk Daily Standard, Leeds Mercury, Scotsman, Newcastle Daily Chronicle, York Daily Herald, Glasgow Herald, Nottingham Daily Express, Yorkshire Post, Times of India, Pioneer Mail, Scarborough Mercury, Kent Messenger, Liverpool Daily Post, Western Mail, Birkenhead News, Citizen, Architect, Builder, Harrogate Advertiser, Crewe Guardian, Bradford Observer, Eastern Daily Press, Bristol Mercury, Birmingham Gazette, West Bromwich News, Bath Argus, New York Herald, Sheffield Daily Telegraph, Evesham Standard, Carlisle Journal, Swansea Herald, Rugby Advertiser, Coventry Herald, Gloucester Journal, Essex Herald, Stafford Advertiser, Worcester Chronicle, Dundee Advertiser, Somerset Gazette, Plymouth News, Retford Herald, Wolverhampton Express, Modern Society, Exeter Times, Yeovil Advertiser, Mining Journal, Brisbane Courier, Reading Mercury, Local Government Chronicle, City Press, Hertfordshire Mercury, Surrey Advertiser, Public Health Engineer, Local Government Journal, Luton News, West Sussex Gazette, Courrier de la Presse (Paris), Herne Bay Press, Warwick Times, Grimsby Daily Mail, Standard, Hyde Reporter, Northern Echo, &c., &c.*

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I.—*Indian Medical Record*, Calcutta.

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